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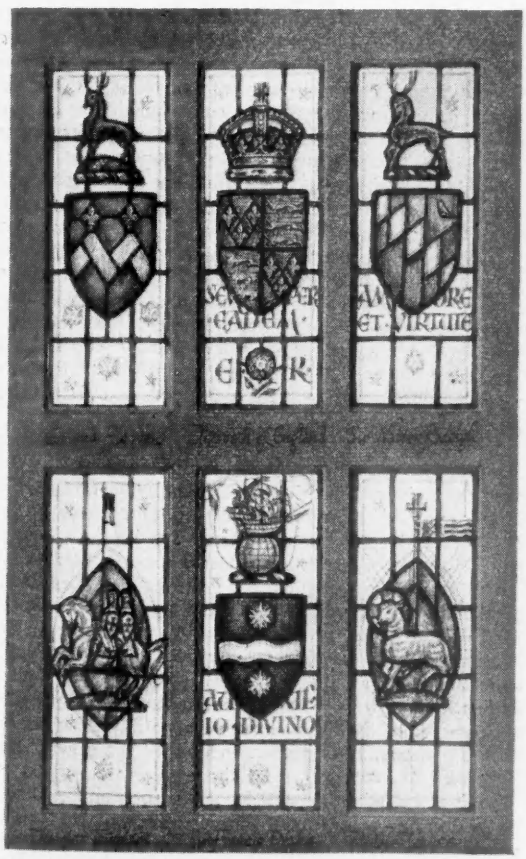


Drawn by Moira Forsyth. R.A. Exhibition, 1950.

STAINED GLASS PANELS FOR DRAKE LANTERN, MIDDLE TEMPLE HALL. DESIGNED BY MOIRA FORSYTH.

THIS WEEK'S NEWS

THAT it was perhaps as bad a case as one might expect to find of the effects of erosion and corrosion in old stonework, is how the condition before renovation of Mereworth Church is described in an article on p. 240

A CORRESPONDENT suggests that a small independent body of qualified technical persons composed of contractors, quantity surveyors, government officers, etc., should be brought together to investigate reports made on direct-labour successes in order that some confidence may be felt in the figures frequently published. p. 242

THE NEW air-conditioning and lighting plant which has been installed in Gallery XXIX of the National Gallery is described and illustrated. The air-conditioning plant is sufficient to serve a further five rooms, and ultimately it is hoped that the whole of the National Gallery will be air-conditioned. p. 251

"QUANTITY SURVEYORS should all undoubtedly lend their whole-hearted support to resisting the ever-present pressure to commence work on a site before the scheme has been properly planned," said Mr. M. H. Thackray, F.R.I.C.S., at a recent meeting of quantity surveyor members of the Royal Institution of Chartered Surveyors. They all knew, he continued, that it was difficult for the quantity surveyor to do that when the architect and building owner said that a start must be made, but he advised the meeting not to take the line of least resistance and prepare what could only be approximate quantities. p. 253

IF CANADA wants the Sterling Area to go on taking her agricultural surpluses, she must provide it with the dollars to do so, is a view expressed by Mr. James S. Duncan, C.M.G., chairman of the Canadian Dollar-Sterling Trade Board. "There are only two ways of providing the dollars," he says, "either we must continue making loans or gifts, or we must let them pay their own way by earning dollars in this market." p. 255

THE FIRST of three articles written by Norman P. Greig, B.A., Barrister-at-Law, on Exemptions from Development Charge, appears on p. 256

AN OUTLINE of the historical development which has resulted in our present ways of living and some of the problems involved in creating smooth-running neighbourhood units are given in a report on a paper read by Mr. L. E. White at the Housing Centre. p. 256

THE NATIONAL ARBITRATION TRIBUNAL has now made its award in a question as to the terms and conditions of employment being observed by a firm of building and civil engineering contractors in connection with certain work at a site at Sellafield, Cumberland. p. 259

THE BUILDING PROGRAMME AND THE MINISTRY OF WORKS

THE Ministry of Works report for 1949 (extracts from which appeared in our issue last week) is in many ways an impressive document. It describes in general terms the responsibilities of the Ministry in connection with the national building programme, the machinery for consultation with the building industry, and what is being done in regard to research and technical development. There follows a brief account of the Ministry's activities with regard to building materials, after

which is given a good deal of information about Government buildings and the numerous activities the Ministry took over from the old Office of Works.

A great deal of the work described in this report is deserving of the highest praise. The research into methods of building in stone, the efforts through film publicity and otherwise to disseminate new technical information, the erection of a pilot plant for the cleaning of clinker for the purpose of converting it into lightweight blocks, are only a few instances of the efforts being made to overcome the shortages and difficulties which beset the industry. The report also contains a number of photographs which indicate that the high standard which we have come to associate with much of our new public building is being well maintained.

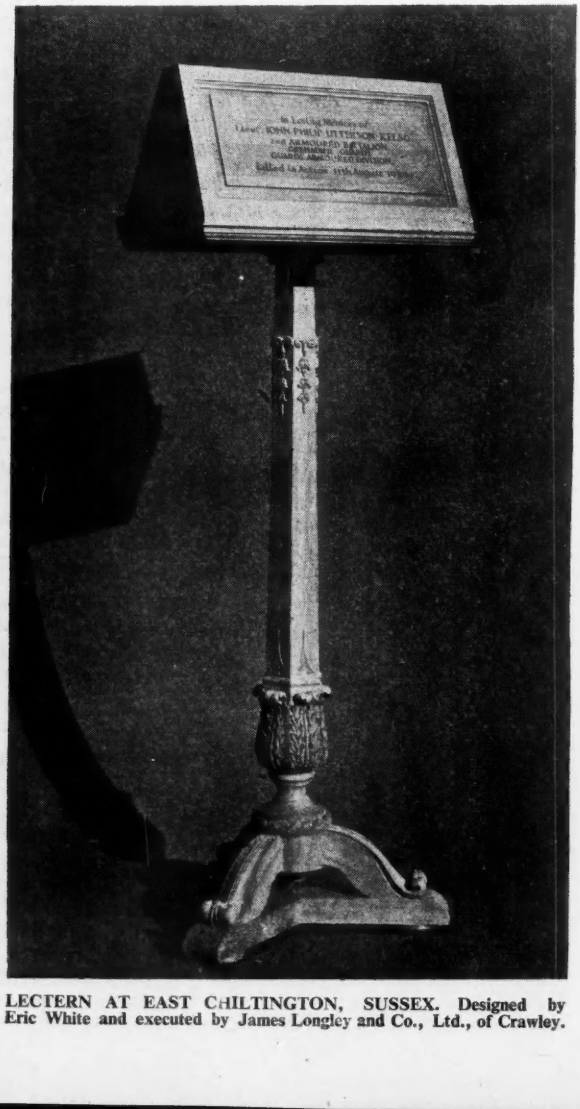
Nevertheless, a critical reading of this report leaves one with the feeling that all is not well, particularly with regard to the organisation of the national building programme. It was for the purpose of organising and controlling the building programme that the Ministry was brought into being in 1940, and it is upon this side of its work that the success of the Ministry will be judged. It is thus pertinent to ask whether the Ministry's efforts at planning and the system of controls which it operates are succeeding in the paramount object of securing the largest possible output from the building industry. The answer which almost any architect or builder would give to that question is "No." And, if further confirmation is needed, there is the recent Working Party report which points out that output is still about 20 per cent. lower than it was before the war. One of the reasons ascribed by the Working Party for this low rate of output was the shortage of materials, and it is therefore disconcerting to read in the Ministry's report for 1949 that:—

> "The year has seen the consolidation of the increased production obtained in previous years and in the great majority of building materials output and demand have been in balance, so that the Ministry has not often been required to take special action, either to stimulate production or to assist in distribution."

Actually, there is a fairly simple explanation of this apparent contradiction between the two reports, though it is hardly complimentary to the efficacy of the Government's planning. The explanation is to be found in the existence of a vicious circle: output is low because there is an insufficient supply of materials, but so long as the building programme is planned on the basis of low output it is possible to claim that "output and demand are in balance." Instead of perpetuating this position, the Ministry should frankly admit that the supply of materials is not sufficient to secure maximum output. Then everyone concerned can get down to the task of seeing what steps can be taken to increase the flow of materials.

Another important point which emerges from the Ministry's report is that the Ministry has now only a secondary responsibility in the formulation of the national building programme. This has probably been the real position for some time past—last year we drew attention to the vagueness of the Ministry's 1948 report in this connection. At all events, the formulation of the building programme is now declared to be the responsibility of the Central Economic Planning Staff; it is that body, not the Ministry of Works, which lays down the monetary ceilings for each Department concerned with building, and allocates the corresponding amount of steel. Each Department (e.g. the Ministry of Health for housing, and the Ministry of Education for schools) then establishes the priorities amongst the works for which it is responsible. When towards the end of 1949 the rate of capital investment had to be cut, the Departmental ceilings were reduced, each individual Department deciding how the reduction was to be achieved in its own sphere of activity. The Ministry of Works, however, is responsible for the Headquarters Building Committee which deals with any administrative difficulties which may arise from time to time within the broad framework laid down by the economic planners. The Ministry's regional organisation also has an important part to play in sanctioning the starting dates for individual projects.

It cannot be said that this is a satisfactory system. It virtually puts the economic planning staff into the position of a dictatorship. No doubt, the economic planners are theoretically responsible to the Cabinet, but it is not likely that the Cabinet exercises much control. It is significant that the Ministry of Works report does not even attempt to maintain the fiction of Cabinet control; it bluntly says that the Central Economic Planning Staff is responsible for the broad control of the programme and the allocation of Departmental ceilings. In our view the responsibility for drawing up the building programme should rest primarily upon the Ministry of Works in consultation with (*a*) the other Government Departments concerned, and (*b*) the building industries and allied professions. The Ministry has contact with the industry through its various advisory committees, and if they were brought into consultation at an early stage a far more realistic programme would be drawn up. The programme thus laid down should then be submitted to the Cabinet—or to a Cabinet committee—for approval, the economic planners being called upon to advise on how far the programme could be attained in view of the general economic position. The advantage of the system we suggest is that, instead of the planning staff fixing the programme, they should be called upon to say what resources are available for building; the Ministry and the representatives of the industry could then decide how to use those resources to maximum advantage. By these means, we are sure, the country would get a much larger amount of building work done than at present.



LECTERN AT EAST CHILTINGTON, SUSSEX. Designed by Eric White and executed by James Longley and Co., Ltd., of Crawley.

NOTES AND NEWS

Life Down Under

LIVELY-MINDED cartoonists with a capacity for seeing the funny side of (literally) anything have often evoked at least a half-hearted snigger by drawing what they visualise as a widely comical aspect of life as it might be lived if the use of atom bombs forced the human race to dwell underground. That, possibly, is one reason why we are moved to smile at, rather than consider seriously, the report from Texas that an American building contractor has designed an "atomic home," comprising five rooms, to be built 17 feet below ground level.

It is claimed, apparently, that this underground house will give complete protection against atom-bomb attacks. The roof should be five feet deep and made of concrete covered with earth. Each room should have an air shaft, and for convenience a lift should be provided up to the front door.

The ingenious designer of this incredible building is reported to have said that the atom-bomb-proof feature alone would undoubtedly attract buyers for his house, and that in any case it is better to live underground because one is protected from heat, tornados, lightning, fire, storms and, in fact, everything. And, of course, you can use all your ground as a garden.

We have tried very hard to appreciate fully the advantages which a house of this type offers but cannot truthfully say that we have succeeded. Perhaps we have overlooked some fundamental point—or maybe the designer has.

Paxton's Palace.

THE RECENT B.B.C. TALK by Mr. Kenneth Luckhurst on "Planning the 1851 Exhibition" was both enlightening and amusing. It is difficult to realise that so many troubles beset the organisers; to have listened must have brought great comfort to the sorely harassed company down on the South Bank. In 1850 a competition was held for the Exhibition design, but as only three weeks were given for the preparation of the scheme nothing of any great value is said to have been produced. The Committee, which included Barry, Brunel the engineer, and Cubitt, the builder of Belgravia, got together and produced a design of their own, which apparently consisted of the best points of the designs submitted in the competition, the whole surmounted by a huge dome roughly twice as big as St. Peter's. When the scheme was published it met with no great favour from the nation, and it was left to Joseph Paxton, fresh from designing the fine glasshouses at Chatsworth, to produce a scheme which met the very special requirements of an Exhibition building. The Committee, rather naturally, were against his idea, preferring their own work, but Paxton gained a great deal of publicity for his scheme and gradually the realisation was born that here was a brilliant building of its type.

The Removal to Sydenham.

PERHAPS the most intriguing aspect of the whole thing was its bodily removal to Sydenham, and all who saw it at its second resting place will agree that it presented an unforgettable sight. As to whether it was a masterpiece it is difficult to say; it was ingenious to a degree and very expressive of its time, yet at Sydenham some have thought it looked totally out of place and its ultra-glacial expression was never quite assimilated into the surrounding character of the district. Nevertheless, it forms a landmark in most peoples' memories, and the South Bank will do well indeed if the final expression of the 1951 scheme is as strong as that of 1851.

The Lethaby Scholarship.

FURTHER to the note which appeared in our issue of June 30 regarding the award of the Lethaby Scholarship, the Society for the Protection of Ancient Buildings, 55, Great Ormond-street, W.C.2, the founders of the scholarship, now inform us that the closing date for application is August 30 next.

City Architect, Plymouth.

APPLICATIONS are being invited for the appointment of City Architect at Plymouth. The post carries a salary of £1,600 rising to £1,750 per annum. Further details appear in our advertisement columns.

Private Architect for Municipal Cafe.

A PRIVATE ARCHITECT is to be engaged, at a fee of £175, to prepare plans for a café in the grounds of Chiswick House, London, W.4. This decision has been taken, due to shortage of municipal architectural staff, by the Brentford and Chiswick Town Council. The intention is to erect the café in time for next season's opening of the grounds, and it is understood the commission will be given to a local architect.

Professional Announcements.

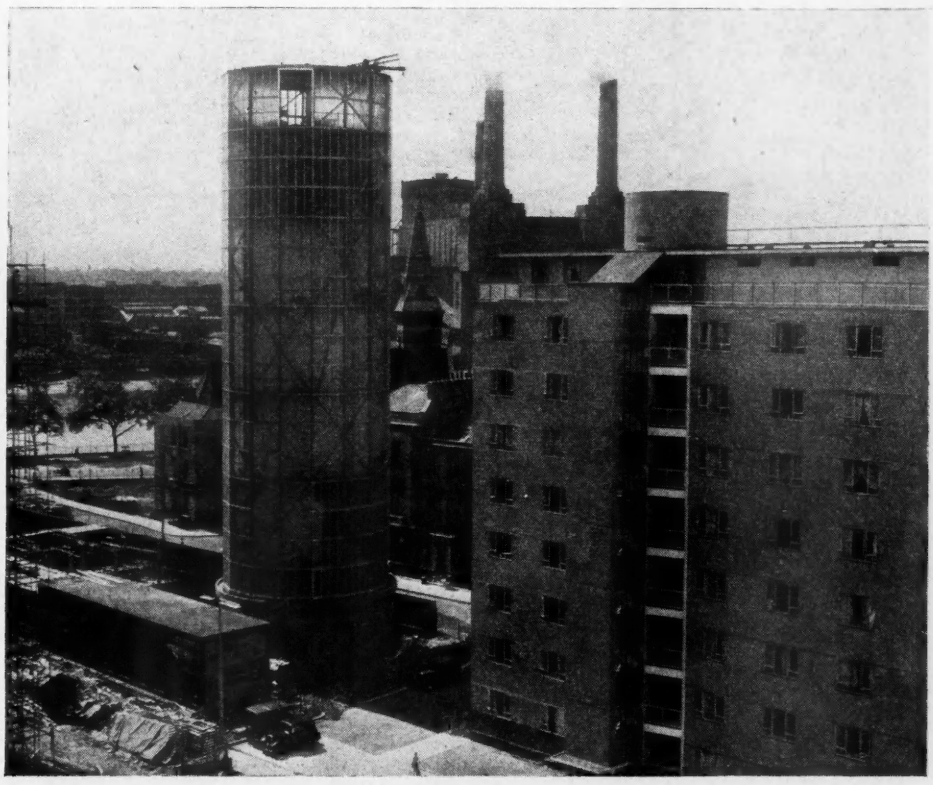
MR. STANLEY HAMP, F.R.I.B.A., of 126, Wigmore-street, W.1, announces that he has taken into partnership MR. D. BRYAN FROWD, A.R.I.B.A., MR. ALEX. MOIRA, A.R.I.B.A., and MISS CHRISTIAN HAMP, A.R.I.B.A. The practice will continue under the style of Collcutt and Hamp, Architects.

MR. BURTON STIBBON, M.I.Mun.E., architect, surveyor and town planning consultant, has moved from 129, Finsbury Pavement, E.C.2, to Finsbury Pavement House, (Room 221), 120, Moorgate, London, E.C.2 (Tel.: Monarch 3250).

FROM "THE BUILDER" OF 1850

Saturday, August 24, 1850.

EMERY PAPER. — The Fishery Board has issued a circular, recommending fishermen to catch as many dog-fish as possible, skin them, and dry their skins for sale, to be used in lieu of emery paper, for which we happen to know that they are by no means a bad substitute.

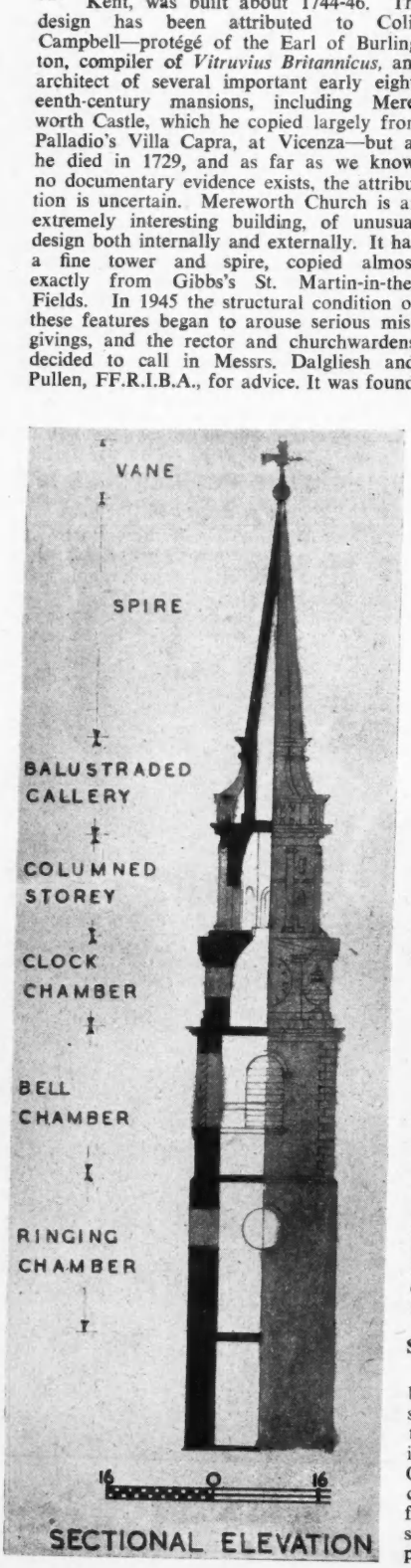


PIMLICO HOUSING. Seen above is a view of the first completed block of the Pimlico Housing Scheme, designed by Powell and Moya, AA.R.I.B.A. To the left is the heat storage cylinder which makes use of exhaust heat from Battersea Power Station, on the other side of the river. The tower is insulated with glass and is, in fact, a giant cylinder of welded steel.

MEREWORTH CHURCH

Restoration of Tower and Spire

ST. LAURENCE'S CHURCH, Mereworth, Kent, was built about 1744-46. The design has been attributed to Colin Campbell—protégé of the Earl of Burlington, compiler of *Vitruvius Britannicus,* and architect of several important early eighteenth-century mansions, including Mereworth Castle, which he copied largely from Palladio's Villa Capra, at Vicenza—but as he died in 1729, and as far as we know, no documentary evidence exists, the attribution is uncertain. Mereworth Church is an extremely interesting building, of unusual design both internally and externally. It has a fine tower and spire, copied almost exactly from Gibbs's St. Martin-in-the-Fields. In 1945 the structural condition of these features began to arouse serious misgivings, and the rector and churchwardens decided to call in Messrs. Dalgliesh and Pullen, FF.R.I.B.A., for advice. It was found that the structure was indeed in a dilapidated condition, and the architects advised that repairs should be promptly carried out to avoid the risk of collapse or serious accident. This work has now been done, and the following account of it has a special interest at a time when so many churches are in serious need of conservation and repair.



Architects' Reports.

The architects produced two reports, accompanied by geometrical drawings and sketches, the first one in October, 1945, and the second in July, 1946, after the scaffolding had been erected to the full height of the spire, enabling a more detailed examination to be made. From these reports the following notes are compiled. The building is in two kinds of stone, the main structure being in Kentish ragstone and the dressings and octagonal portion of the tower in fine-grained local sandstone. The ragstone was in tolerably good condition after exposure to the weather for close on 200 years, but the sandstone had suffered badly from erosion both on the surface of the stones and along the joints and bedding planes.

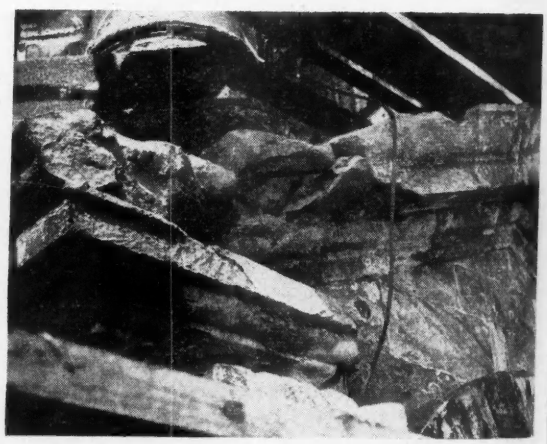
The moulded finial, apparently in Portland stone, appeared to be badly split. The spire itself, as seen from the ground, appeared to be in sound condition, but the sandstone octagonal galleried storey immediately below it had suffered badly and parts were in a dangerous condition. Nearly all the balusters to the gallery, except those which had been renewed during recent years, were very defective and deeply eroded. All the vases, eight in number, had long disappeared, while many of the ashlar stones in the general face work had deteriorated below the general surface, and considerable disruption had occurred in the stone to the octagon and piers through the rusting of the old iron ties, which had in consequence burst the stones in which they were bedded.

State of General Decay.

The stonework to the columned storey beneath the gallery and above the clock had suffered considerably from general decay, the worst features here being the defects in the cornice, which was deeply eroded. On the north-west face the corner of the cornice had come completely away and in falling had damaged some of the lower stonework. It was possible to remove large pieces of stone by hand. The clock storey also showed general defects in its cornice. The four large vases at the corners were also cracked and defective in places. The remainder of the tower below the clock storey and above the main roof line of the nave appeared to have weathered well and only minor repairs seemed to be required.

After the scaffolding had been erected to the full height of the spire and a more detailed examination became possible, it was found that a graver state of erosion existed than could be seen from the preliminary examination. The copper vane was split and faulty, and at some time had been wired together. Owing to the split in the shaft, water had got into the ball and rusted the iron supporting shaft, which in turn had split the Portland stone finial.

"A nice piece of scaffolding."



A pediment over the clock face.

The vane was dismantled and renovated and the Portland stone finial renewed. The supporting rod is of iron, and as it was quite impossible to replace this in bronze without the probability of pulling down anything up to eight feet of the spire to ascertain its length, it was decided to de-rust the rod and apply three coats of rust-resisting paint, a treatment confidently expected to last for many years.

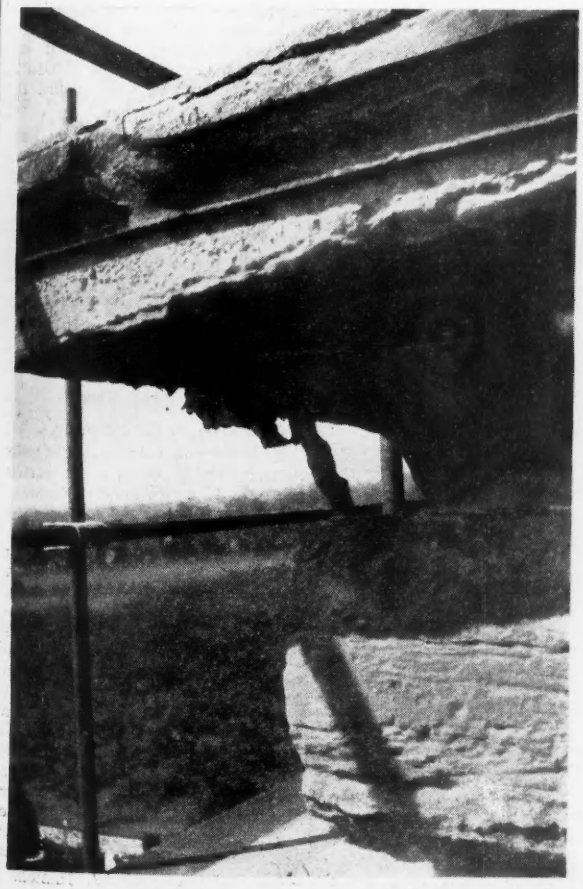
Condition of the Spire.

The spire itself was in tolerably good condition and appeared to be built of a harder stone than the lower storeys, probably from a lower bed in the quarry. Certain of the stones were in the initial state of erosion, and these were cut back to a depth of two inches and made up in reconstructed stone. The joints, on the whole, were sound, and pointing has been done only where necessary. The cornice at the base of the spire was covered in places with a very inferior asphalt, which has been removed and replaced by an added thickness of reconstructed stone tucked into a stone chase. In the galleried storey where the balustrade occurs all the original sandstone balusters remaining (thirteen in number) have been replaced in Portland stone to match those which were replaced some years ago. These were stained with boiled ivy leaves to bring them into harmony with the general work. It was decided to omit the eight vases which at one time adorned this stage—so long ago that very few people remember their having been there.

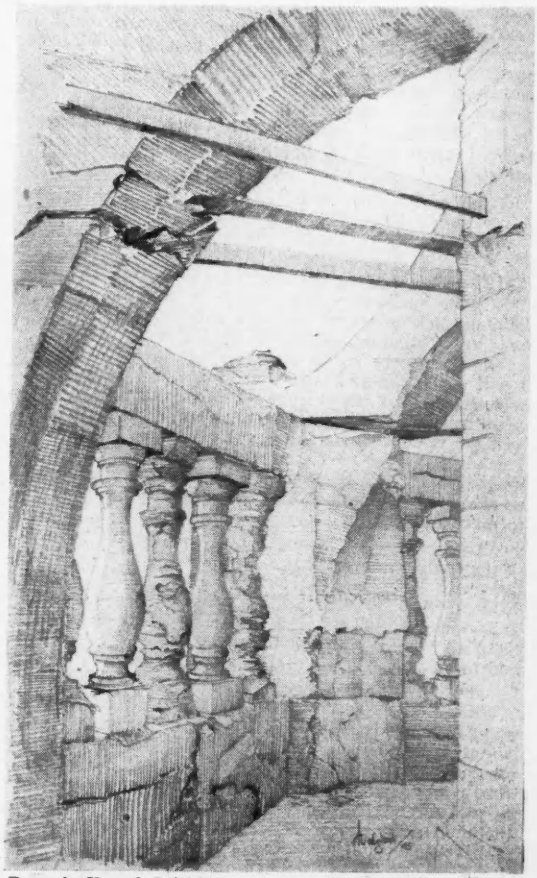
Fabric dowelled to receive copper lacing.

Erosion of cornice and portion of repaired work.

The floor of this galleried storey was covered with asphalt, long since perished, and this has been replaced with reconstructed stone carried up each side to form a skirting and laid to drain to the centre of each bay, where a copper pipe has been fixed and taken out through the base of the balustrade to discharge in the open clear of the building. This is only a 2-in. diameter pipe, hardly discernible from the ground.



South-east corner of cornice below clock storey, showing erosion.



Drawn by Kenneth Dalgleish

Detail of balustraded gallery, showing condition before repair.

The architects were amazed at the number of iron cramps, dowels and bands which had been embedded in the stonework and had corroded. Had these been in bronze a great deal of the damage would never have occurred. All stones which had become disrupted by rusting of iron ties have been removed and reinstated in reconstructed stone, laced to the fabric with copper wires. All deeply affected stonework, especially that to the overhanging cornices, was removed and similarly reinstated. The vase at the north-west corner of the clock chamber was in a very dangerous state and had to be immediately put into a cradle for security; half the cap had entirely disappeared, again owing to iron cramps and dowels corroding and bursting the stone. This has now been repaired. At the south-east corner of the cornice below the clock storey, erosion was exceptionally bad; as one of the accompanying photographs shows, a small strut of hard stone was left, between which and the main stonework it was possible to pass an arm. All this has now been repaired in the manner already described.

To avoid any possible risk of shrinkage in the reconstructed stone, the architects required that no new length of work should exceed 24 in. This was ultimately pointed in the normal way, and in the case of cornices and pediments, the pointing was carried out in bitumen. A year after the work was completed, and after a very exceptional winter, the work was inspected and found to be entirely free from cracks and crazing.

Mereworth was perhaps as bad a case as one might expect to find of the effects of erosion and corrosion in old work. That it has been so satisfactorily dealt with is a tribute to modern methods of conservation and repair. The work was carried out by Reparations and Steam Brush Co., of London, S.E.1, under the direction and supervision of the architects.

G. J. H.

CORRESPONDENCE

"Savings by Direct Labour"

To the Editor of *The Builder*.

SIR,—I have read with interest your article (August 11) giving the figures in which a saving has been made by the Direct Works Department of the Wolverhampton Corporation as against contract figures. These figures, to me, give a vastly different picture, as I wonder if the overheads a contractor has to pay are included in the actual cost, viz., holidays with pay, insurances, site and head office staff, expenses, etc. Also, I consider the figures prove that the output of the contractor must be much better than the direct labour department as I cannot visualise any contractor carrying out a contract which would show a *gross* profit of approximately five per cent.

G. PERCIVAL.

Gamlingay, Sandy, Beds.

To the Editor of *The Builder*.

SIR,—How near to the truth do we get with figures? The report in your columns in the August 11 issue under the heading "Savings Achieved by Direct Labour" behoves me to utter this warning. I will not say more than to mention that I was engaged on direct-labour building for some time until recently, and learned very well the value of mere figures. Thus, when I read that Wolverhampton's contract 73 was worth £27,765, but basic wages paid out on the contract were £6,543, I am prompted to make the following observations:—

Wages bear a fairly steady ratio to cost of materials on normal contracts and, whilst ratios for different trades vary widely, I think 50-50 per cent. is a fair average ratio to assume. On this basis labour and materials would have cost together £13,086; add to this, say, 20 per cent. for overheads, etc., which brings the cost to £15,703.

What of the balance of the contract sum, viz.: £12,062 (or nearly half)? Was it direct labour expenditure, or was it the value of sub-contracted work? If the latter is true, what a misnomer is "direct labour," though let me not dwell on this point, but draw attention to the saving direct labour claims to have made. The saving amounted to £1,353. Assuming nearly half the contract was sub-let, this would not have been permitted unless a saving on the estimate was probable. How much of the £1,353 saved was saved by the trades sub-let?

Further, did the Council's Cost Office include the 2½ per cent. cash discount usually allowed on sub-contractor's accounts? All elements of cost must be included to present a true comparison with the contractual cost, which figure would have included such discount. I could go on!

I would like to see a small independent body of qualified technical persons composed of contractors, quantity surveyors, government officers, etc., brought together to investigate reports made on direct-labour successes in order that some confidence may be felt in the figures frequently set before us. If savings are truly made, in these days of heavy public spending, all sections of the community will be happy to know, but should there be overspending, whenever that occurs, the causes should be rooted out.

LESLIE W. GARDINER, A.R.I.C.S., A.I.A.S.

107, Grove-vale, E. Dulwich. S.E.22.

To the Editor of *The Builder*.

SIR,—The figures quoted by the Wolverhampton Borough Engineer, showing the saving effected by the employment of direct labour, are interesting. It would appear that, on a £27,765 contract, a saving of £1,353 has been effected; approximately 5 per cent.

It would be interesting to know what items have been included in, or excluded from, the "actual cost" of £26,311, in respect of overhead charges, including: Interest on capital; use and depreciation of plant and tools; salaries to supervisors, clerical staff, measuring surveyors, estimators, bonus clerks, materials clerks, etc.; cost of correspondence, typing, postage, stationery, telephones, etc.; apportionment of office accommodation and expenses; and the cost of remeasuring the variations and preparing final accounts.

In respect of the latter item, it is presumed that, as the remeasurement was required purely for costing purposes, there would be no time wasted in argument, which a contractor would inevitably have to incur in order to get all his claims for extra works admitted.

"STRUGGLING CONTRACTOR."

New Societies

To the Editor of *The Builder*.

SIR,—Your correspondent Priscilla Mopp (*The Builder*, August 4) appears to underrate the new Guild which she has brought into being. There should be no trace of levity on such occasions as the forming of a new society even though it should carry the title of the Guild of Responsible Architects' Charlady Employees (G.R.A.C.E.). For, though it may start by a rapid collection of cheques and subsequently institute a qualifying examination (which, by the way, is only a clever way of getting two cheques, one to sit and one to become a member) it would not thereby be following any new procedure but tracing the well-worn path pioneered by our now so autocratic professional bodies.

With reasonable luck the G.R.A.C.E. will look back twenty-five years hence to scorn some newly-created Incorporated Charladies' Society which has the audacity to admit to membership charladies who are merely capable of doing a good job of work but have not passed a qualifying examination in (1) mop swinging, (2) geometry of semi-circles at the Chief's door, (3) modern languages, etc.

Sometimes we charladies wonder whether the whole world is not built up on a vast falsity of values. We see so many members of various professions, highly-skilled, industrious and keenly interested creatures spoiling their fascination for their jobs by being compelled to grind away at study in order to obtain some magical "letters" upon which they will be judged. We think there is something radically wrong with the world when interest and enthusiasm are given second place to "qualifications"; this certainly appears to be the case in our day, and the ramifications of this pernicious system run like dry-rot through an old timber building. Everyone knows about it, everyone deep down feels the same about it, but no one has the guts to kick against it and kick hard.

Our advice to Priscilla Mopp is that she should write to her M.P. and ask him to get the Board of Trade to inaugurate a certificate for charladies. If, in the future, she should wish to make some enquiry about her "pass marks," or requires other details, she can always, in the last resort, "write to her M.P.," which is more than most professional people can do under their dictatorships.

"BACK ROOM CHARS."

Cheshire.

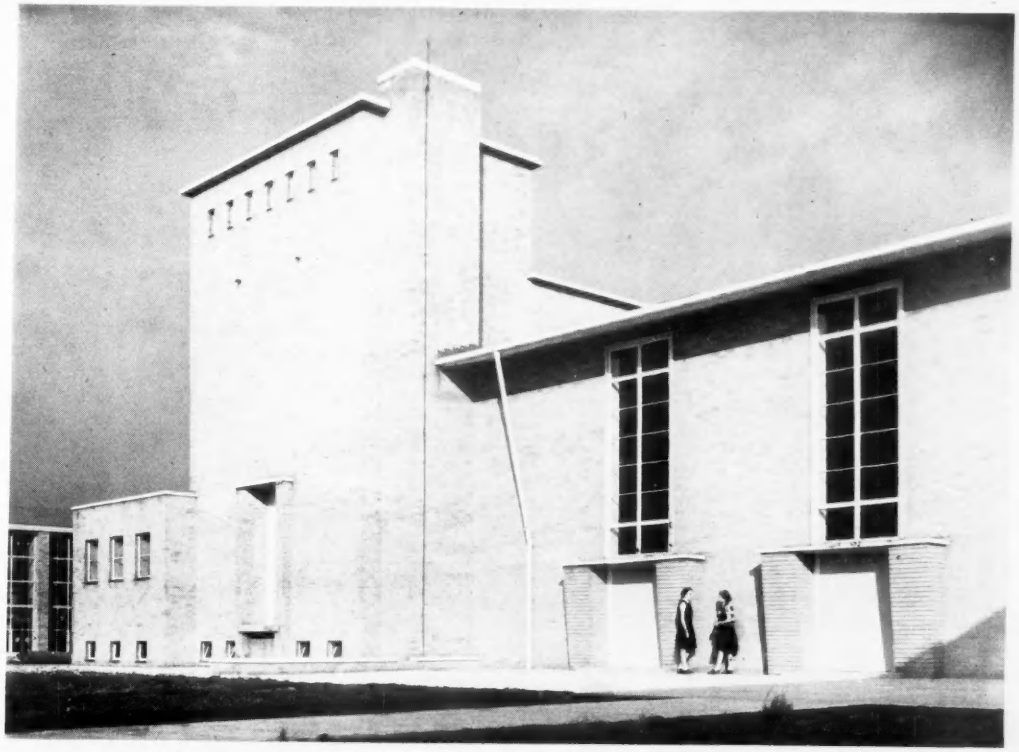
Jointing Stoneware Pipes

To the Editor of *The Builder*.

SIR,—I am afraid that I do not agree with the writer that tarred rope or gaskin is no longer used in joints of stoneware pipes. In recent years I have supervised several drainage jobs on which tarred rope has been used. In the old days plain gaskin was used but this had a tendency to rot. The purpose of tarred gaskin, made like a wreath, is to stop the Portland cement jointing from being pressed into the main run of the pipe. Many good jobs have been spoilt by the excess of the joint being allowed to protrude into the main run of pipe. I personally am in favour of the tarred gaskin if it is made into a wreath. It is difficult to know without the use of gaskin whether the excess of the Portland cement jointing is properly cleaned off, because this must be done before setting and it is quite possible that the Portland cement may percolate through after cleaning off inside the pipe has taken place.

G. W. HARRIS.

London, N.W.10

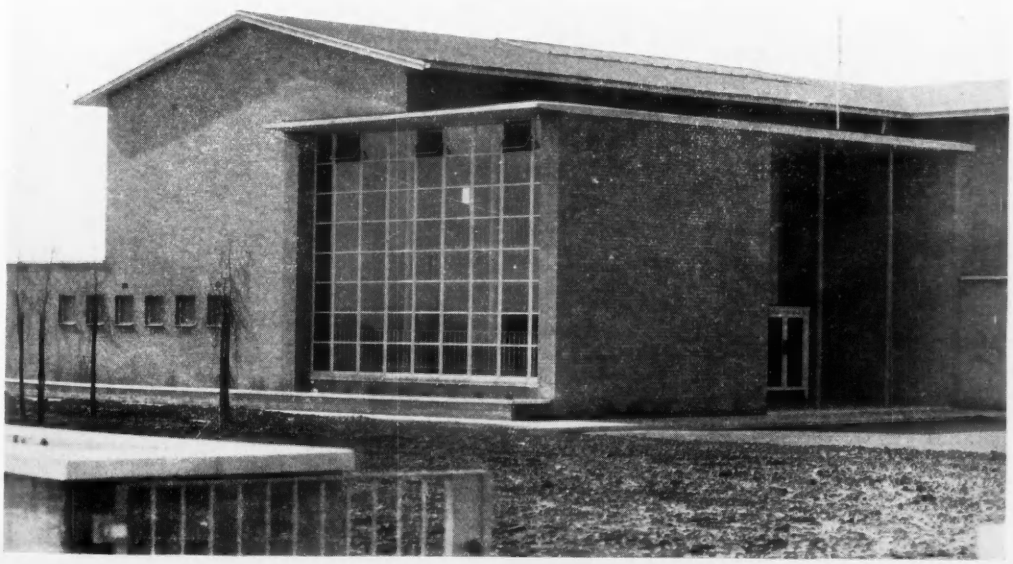


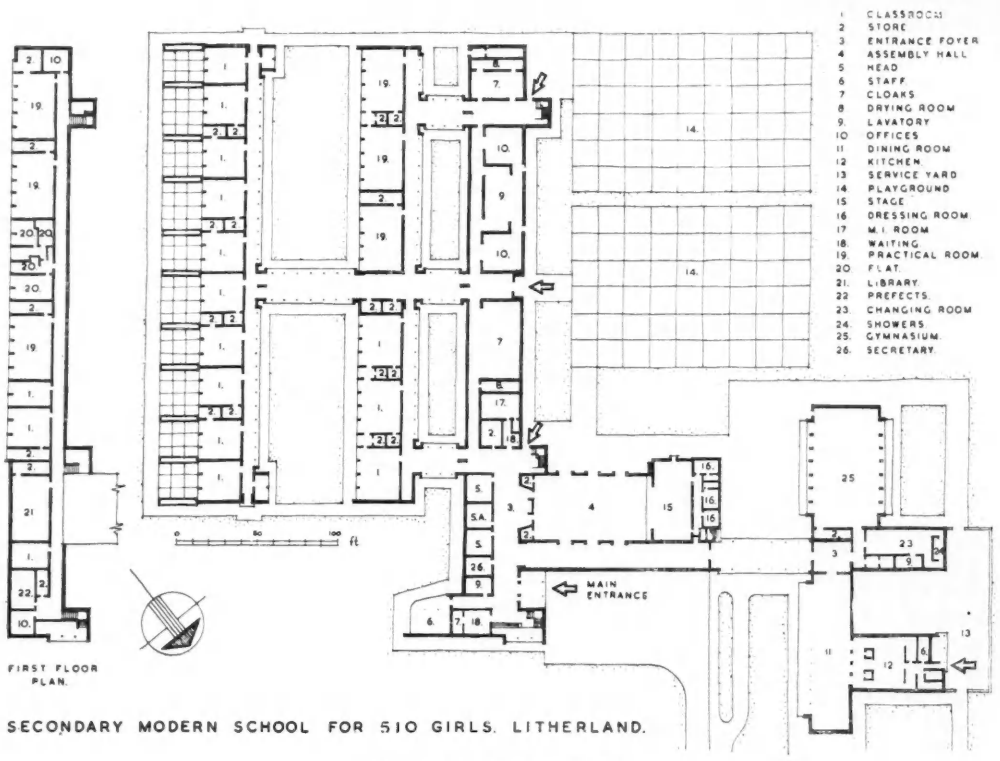
Assembly hall and tower from the south-west. *Below:* The main entrance and staircase window.

LITHERLAND SECONDARY MODERN SCHOOL FOR GIRLS

For the Lancashire County Council

G. NOEL HILL, F.R.I.B.A., M.T.P.I., COUNTY ARCHITECT





The ground- and first-floor plans.

THIS school started building in March, 1947, was completed in February, 1950, and was the first post-war school to be completed for the Lancashire County Council. It is designed to accommodate 510 pupils including sixth-form pupils.

So that an immediate start could be made, a fixed fee form of contract was adopted and the work was carried out in two phases. The first phase was completed in April, 1948, and provided accommodation for 270 pupils, and this necessitated the provision of temporary staff room, lavatory and boiler house accommodation.

The site is level and covers 27.8 acres and is situated on the fringe of a post-war housing scheme near Liverpool.

The opportunity was taken on this, the first major post-war school, to experiment with different forms of construction ; for instance, six different types of suspended ceiling were tried out.

A number of selected flowering and ornamental trees and shrubs have been planted and provision is made for eight hockey pitches, eight hard tennis courts, cricket pitch and running track, and two acres of ground have been prepared for school gardens.

PLANNING.—The school is sited in the north corner of the site to give easy access off Sterrix-lane. All classrooms face south-east. The general classrooms are housed in a separate wing and the practical rooms are grouped in two wings, one on the ground floor and one over the cloakrooms and lavatories on the first floor. The gymnasium, dining-room and kitchen are linked with the assembly hall by a covered way, and this group of rooms can be isolated from the remainder of the building so that they can be used for evening community activities.

The stage is fully equipped and has male and female dressing-rooms and lavatories adjoining.

CONSTRUCTION.—Rolled steel frame with walls of 4½-in. facing brick outer skin, cavity and 2½-in. hollow tile blocks. Suspended floors are generally of precast concrete. Roofs are of aluminium and steel decking and *in situ* reinforced concrete. Fascias are of aluminium sheeting.

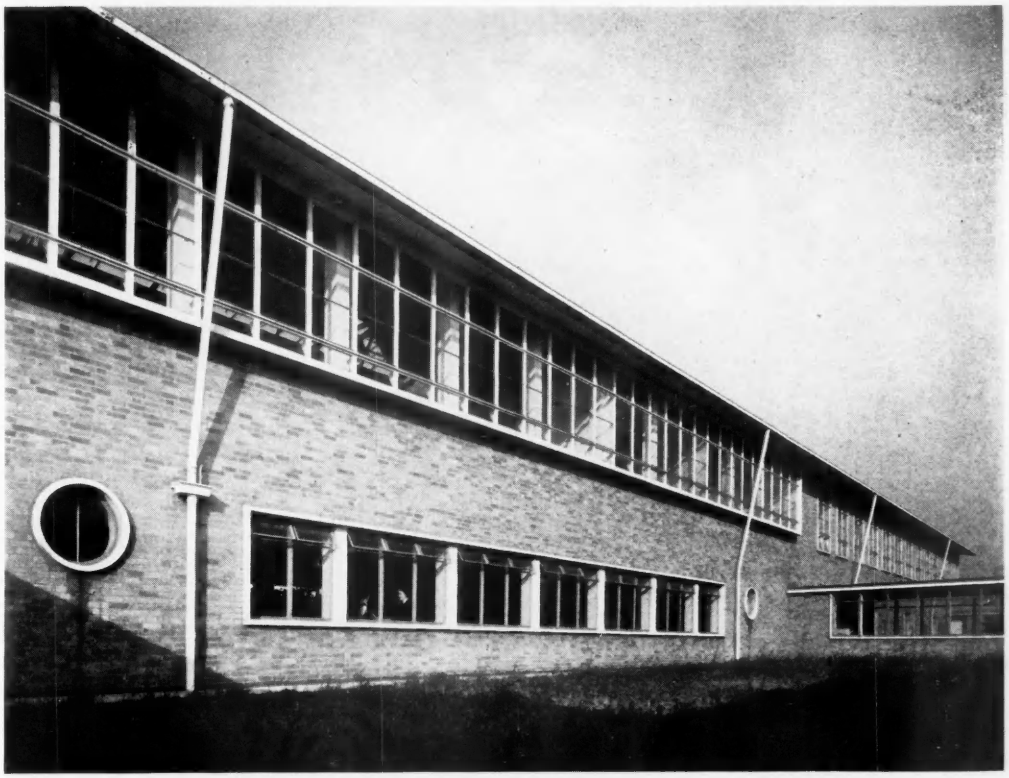
FINISHES.—Externally, 2⅝-in. sand-faced hand-made golden-brown facing bricks are used with artificial stone cills, surrounds and copings. Windows are of steel.

Internally, the walls are generally plastered, with cement glazed dado to corridors, lavatories and cloakrooms. Classrooms have Semtex flooring and adjoining corridors linoleum. Practical rooms and adjoining corridors on the ground floor have asphalt floors, and those for the practical rooms and adjoining corridors on first floor are of "Accotile." The library has rubber tiles and the entrance hall and lavatories, terrazzo tiles. The assembly hall floor is of wood block, and the gymnasium of wood strip. The kitchen and dining-room have asphalt floors.

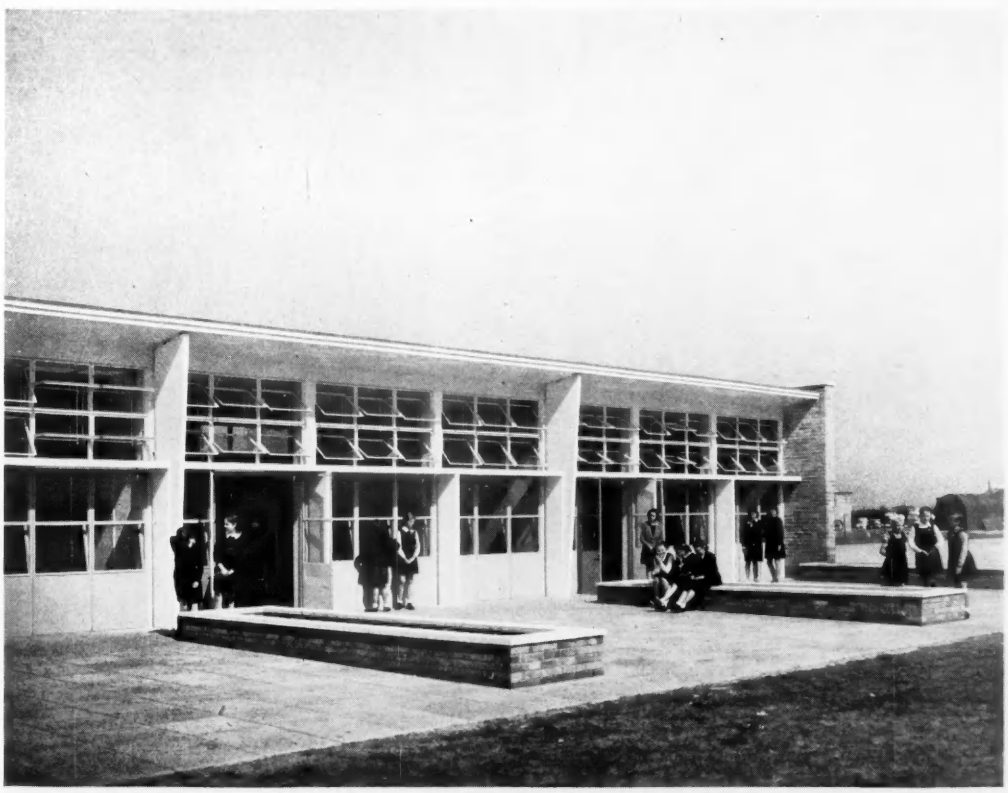
SERVICES. (*Electrical*)—Generally, tungsten lighting with egg-crate laylights to first-floor practical rooms. Special lighting to stage. Radio diffusion system, clocks, period changing bells and alarm bells are installed ; (*Heating*)—Low-pressure hot water with oil-fired boilers electrically controlled. Horizontal service floor ducts under corridors provide easy access to service mains. Recessed convectors are provided in the foyer, assembly hall and dining-room.

The general contractors were Messrs. Wm. Tomkinson and Son, Ltd., of Liverpool.

The sub-contractors included : R. W. Brooke and Co., Ltd., "Accotile" flooring and wood block flooring ; Highway Construction, Ltd., asphalt flooring ; Rowan and Boden, Ltd., "Korkoid" linoleum ; Stevens and James, rubber flooring ; Conways, Ltd., terrazzo tiles and w.c. partitions ; Semtex, Ltd., Semtex flooring ; Sundeala Board Co., Ltd., Tentest Fibre Board Co., Ltd., G. E. Robinson and Co., Ltd. (Celotex), Gyproc Products, Ltd., Beaumonts (Manchester), Ltd. (Andersons' Suspended Ceilings), The Bracketing, Centring and Lathing Co., and William Evans and Co. (Lloyd Talon Components), suspended ceilings ; Pearson Bros. and Campbell, Ltd., artificial stonework ; W. and R. Leggott, Ltd., balustrading to staircases ; Proctor and Lavender, Ltd., bricks ; Communication Systems, Ltd., broadcast reception system ; Ideal Boilers and Rads., Ltd., boilers ; The



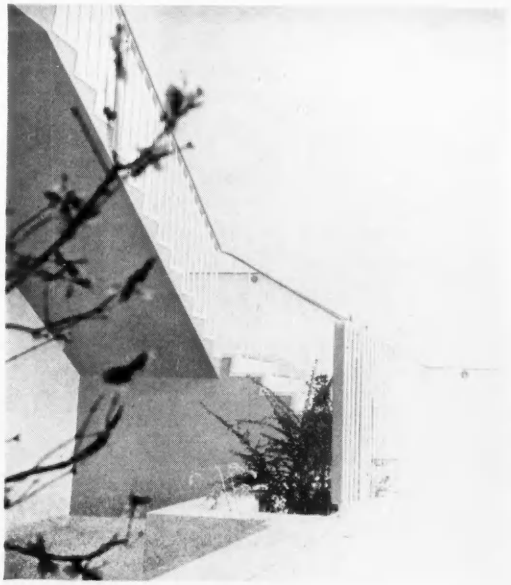
The two-storey block from the south.



Part of classroom block.

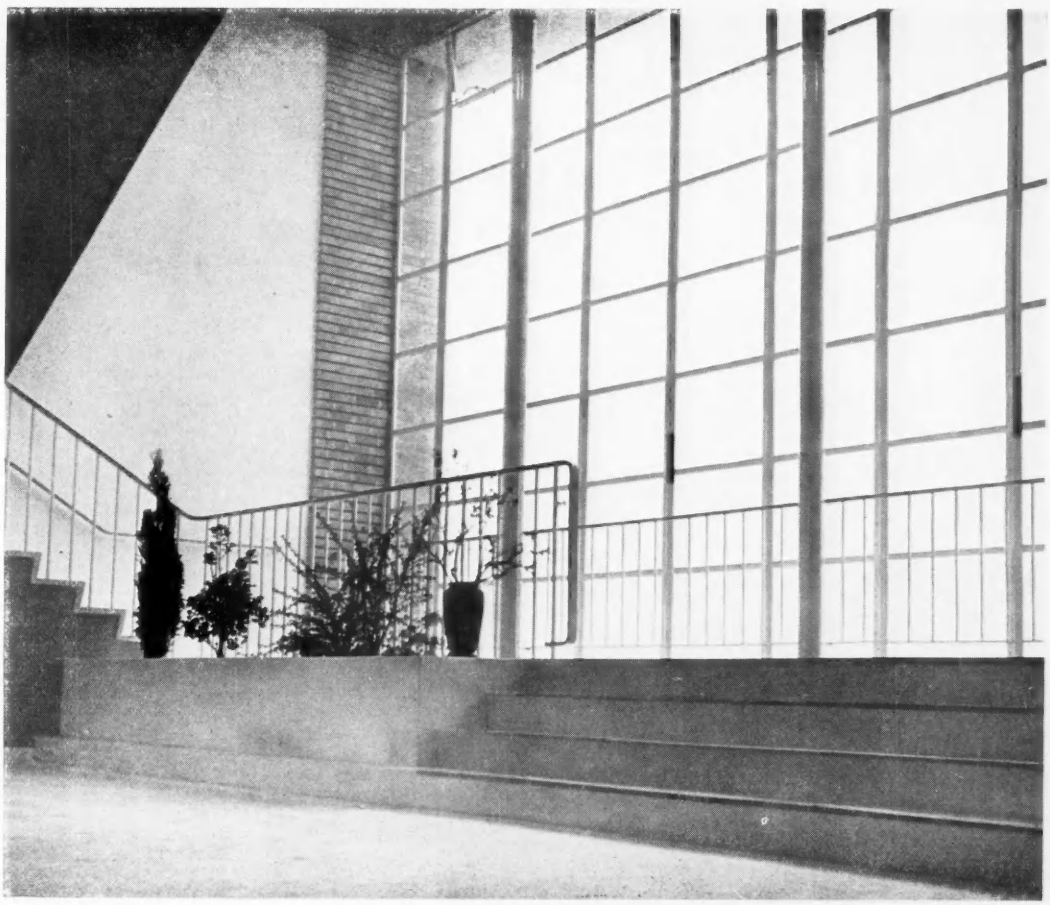
The library. *Below:* The assembly hall.

Roachwood Co., cupboards and fittings ; Clark, Hunt and Co., Ltd., cloakroom fittings ; H. J. Cash Co., Ltd., electrical installation ; Carowe Electrical Co., Ltd., egg-crate laylights ; Educational Supply Association, Ltd., classroom desks and chairs ; C. Seward and Co., heating installation ; Rheostatic Co., Ltd., heating control panel ; Laidlaw and Thompson, Ltd., ironmongery ; Hailwood and Ackroyd, Ltd., light fittings ; Leyland Paint and Varnish Co., Ltd., paint ; Ruberoid Co., Ltd., roofing ; Wm. Briggs and Son, Ltd., roofing ; Watts and Corry, Ltd., Strand Electric Co., Ltd., stage equipment and lighting ; and W. J. Furse and Co., lightning conductors. The grounds were laid out by Messrs. Maxwell M. Hart, of Manchester.



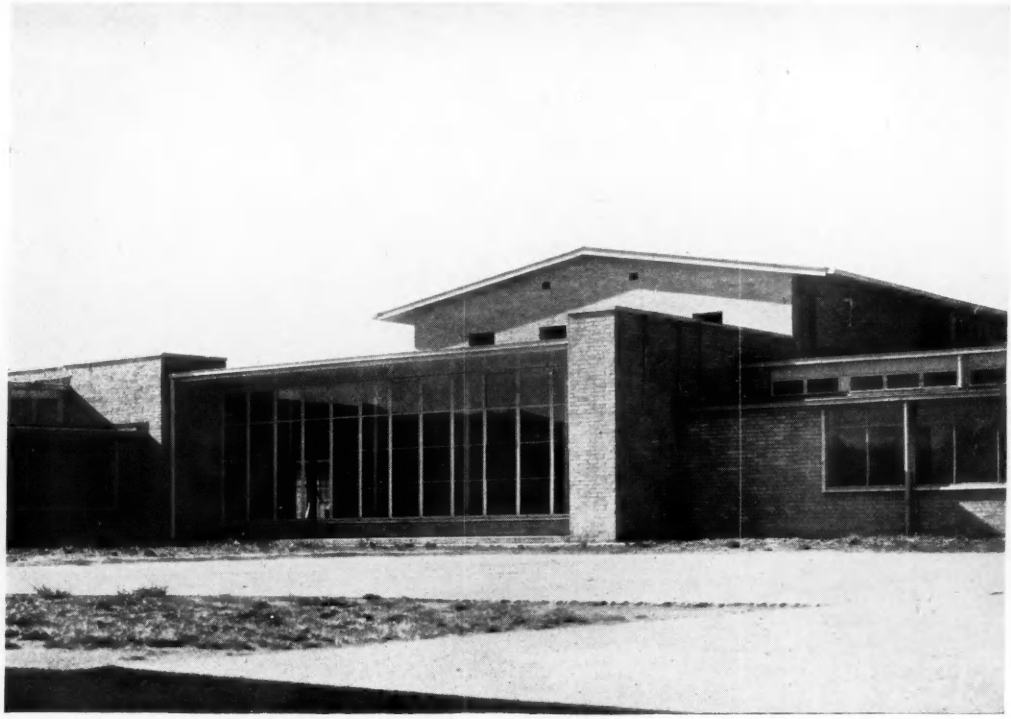
The main staircase.

The art room.



The main staircase window.

LITHERLAND SECONDARY MODERN SCHOOL FOR GIRLS

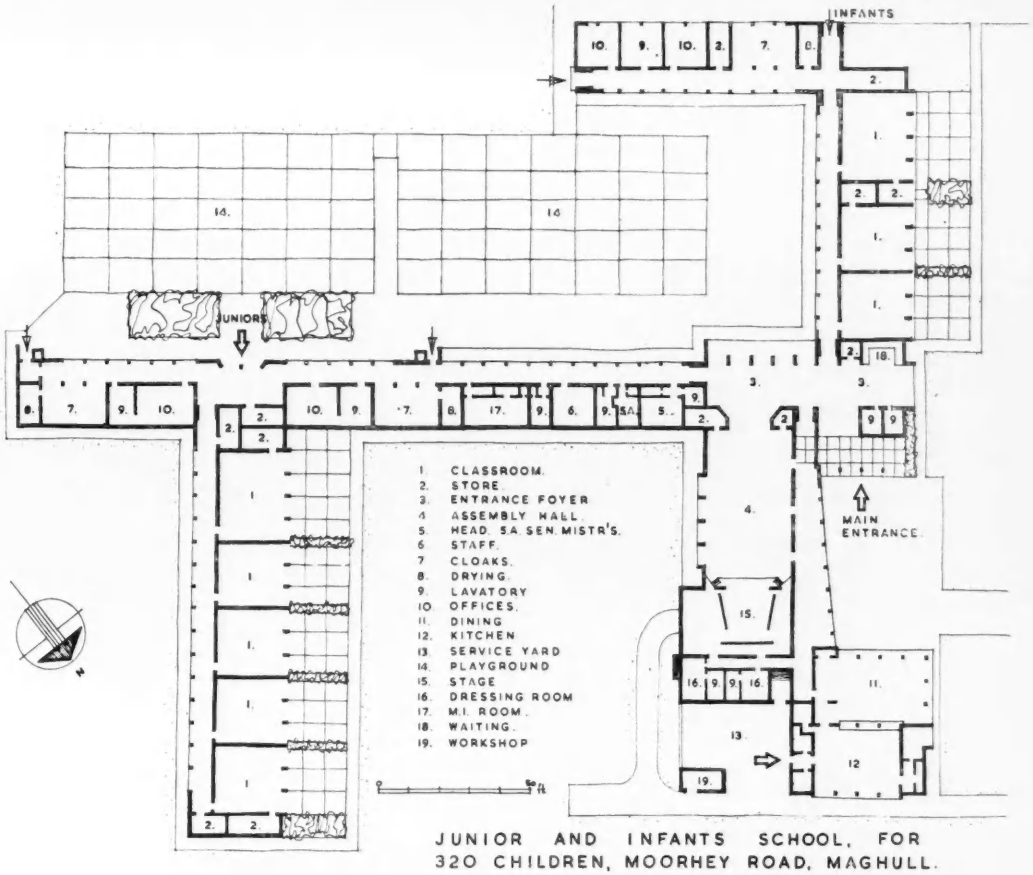


View from south-west showing foyer window. *Below:* The entrance foyer.

MAGHULL JUNIOR AND INFANTS' SCHOOL, LANCASHIRE

for the Lancashire County Council

G. NOEL HILL, F.R.I.B.A., M.T.P.I., COUNTY ARCHITECT



JUNIOR AND INFANTS SCHOOL, FOR 320 CHILDREN, MOORHEY ROAD, MAGHULL.

The plan.

THIS school is planned to accommodate 200 juniors and 120 infants. Work commenced on the site in January, 1948, the infants' wing was occupied in May, 1949, and the junior wing in September, 1949. It is anticipated that the remaining portion of the school, consisting of assembly hall, kitchen and dining-room, will be completed at the end of this month. In order that all the teaching space could be occupied as soon as possible, it was necessary to construct a temporary boiler house.

The site is a level one of eight acres and is flanked on the south-east side by the main Preston to Liverpool railway line. The remainder of the site is surrounded by semi-detached houses.

PLANNING. — The infant and junior departments are planned as separate wings each side of the assembly hall, with the lavatory accommodation overlooking the playground areas. This allows easy access to the lavatories during playtime, and the lavatories and corridors form a useful noise barrier between classrooms and playgrounds.

The assembly hall, dining room and kitchen have been specially grouped so that they can be isolated from the remainder of the school for evening community activities. The stage will be provided with dressing rooms and lavatory accommodation. Provision is also made for a projection room for showing films.

CONSTRUCTION.—Rolled steel frame with metal windows tapped and screwed to the stanchions. Walls are of 4½-in. facing brick outer skin, cavity, and 2½-in. hollow tile inner skin. Floors are of reinforced concrete and roofs are of asbestos decking, except assembly hall, which is wood wool covered with bituminous felt.

FINISHES.—Externally the buildings are finished in 2⅝-in. Ravenhead golden brown facings. Cills, copings and surrounds are in artificial stone and the metal windows are aluminium purpose-made. Internally the walls generally are plastered. Floors to classrooms are of "Aranbee" composition and in corridors, "Accotile." The assembly hall has a wood block floor and the kitchen asphalt. Staff room floors are of Granwood, and lavatories and cloakrooms have quarry tiles.

SERVICES.—(*Electrical.*) Tungsten lighting. Radio, clocks, period changing bells and alarm bells are being installed. (*Heating.*) Low-pressure hot-water with oil-fired boilers electrically controlled. Horizontal service ducts provide ready access to service mains. Recessed convectors are being provided in the foyer, assembly hall and dining-room.

The general contractors were Messrs. Tysons (Contractors), Ltd., of Liverpool.

Following is a list of the principal sub-contractors:—

Ferrocon Engineering Co., Ltd., welded fabric; Robinson and Kershaw, Ltd., structural steelwork; Universal Asbestos Manfg. Co., Ltd., decking units; Matthews and Mumby, Ltd., precast concrete corridor; Ruberoid Co., Ltd., roofing; William Briggs and Sons, Ltd., waterproof membrane; Glyn Nuttal, Ltd., electrical installation; Joseph Sankey and Sons, Ltd., steel door frames; Williams and Williams, Ltd., metal windows; Carowe Electrical Co., Ltd., aluminium fascia; Concrete Unit Co., Ltd., stone dressings; J. Brookes and Co., central heating and hot water services; John Booth and Sons (Bolton) Ltd., steel doors and frames; Flexo Plywood Industries, Ltd., fire-resisting doors; Forticrete, Ltd., glare baffles; Associated Clay Industries, Ltd., sanitary fittings; W. E. Farrer, Ltd., washing fountains; James Gibbons, Ltd., ironmongery cloakroom fittings; Conways (Tiles and Terrazzo), Ltd., terrazzo; Shaw Glazed Brick Co., Ltd., glazed tiles; Joseph and James Hall, Ltd., hose reels; Forticrete, Ltd., precast concrete

Infants' block corridor.

Infants' lavatory.

partitions; Wm. Gratrix and Sons, Ltd., railings; Neuchatel Asphalte Co., Ltd., flooring; R. W. Brooke and Co., Ltd., wood block flooring; Rowan and Boden, Ltd., "Aranbee" and "Accotile" flooring; Granwood Flooring Co., Ltd., block flooring; Eastwoods Specialists, Ltd., suspended ceilings; Haskins Rolling Shutters, Ltd., steel rolling shutters; Falk, Stadelmann and Co., Ltd., trough corridor fittings and roof lights; Sundeala Board Co., Ltd., and W. J. Holloway and Bros., Ltd., suspended ceilings; and G.E.C., Ltd., decorative lighting fittings.

An infants' classroom.

MAGHULL JUNIOR AND INFANTS' SCHOOL, LANCASHIRE

THE NATIONAL GALLERY

New Air-conditioning and Lighting Plant

GALLERY XXIX is the first in the National Gallery which has been air-conditioned and illuminated with modern artificial lighting. The whole scheme has been designed by the Ministry of Works and carried out under their supervision, and is among the most advanced of its kind in Europe. The Gallery was opened to the public on August 21.

During the war the National Gallery collection was stored in mountain caves which had to be equipped with air-conditioning. It was then found that the damage to the pictures caused by fluctuating relative humidity was reduced by nearly 75 per cent. After the war, planning of air-conditioning at Trafalgar-square was begun and the idea was further supported by the urgent recommendations of the Weaver Report in 1947.

The air-conditioning plant keeps the air stable in temperature, in relative humidity, and it also keeps the air clean. Variations in humidity are the chief cause of fundamental damage to old pictures; on the whole, they do more harm to panels than to canvases, but air-conditioning can reduce this deterioration enormously. Excessive humidity condenses on the surface of pictures and mixes there with the deposit from dirty air. The film thus formed cannot be removed without friction. It is to avoid this that glass is used. With air-conditioning, therefore, there is no need to protect paintings behind glass. The absence of glazing, in turn, helps to overcome problems of reflection and thus makes possible the use of far stronger illumination. Besides being needed for the preservation of the paintings, air-conditioning is of value to the visitor because it reduces fatigue by providing better ventilation and an even temperature throughout the seasons.

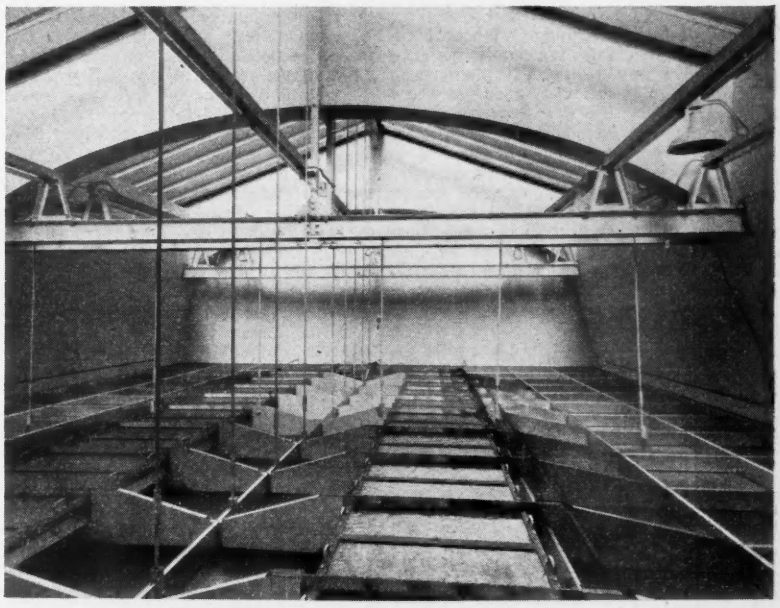
The engineering costs of £15,000 include enough air-conditioning plant to serve a further five rooms. The building costs of £25,000 include £7,000 for the new plant room.

The Air-conditioning Plant.

The plant now installed is housed at the rear of the West Wing, an existing light-well area having been excavated for the purpose. In selecting the plant the Ministry of Works took advantage of available machinery from Government disposal stock. In the layout of the plant the least possible major structural alterations have been made to the existing building. The air supply duct system has been arranged in existing crawlways under the ground floor of the building, and the inner linings of Gallery XXIX have been brought forward to house the air ducts. The spillways for the ducts are just below the glass ceiling. The original marble skirting of Gallery XXIX has been retained, and carries the six bronze grilles through which air is extracted from the room. The marble door linings and architraves, much damaged during the war, have been restored save for the removal of the pediments.

The installation provides a temperature of 65 degrees F., with air at 58 per cent. relative humidity throughout the year 24 hours a day. Extreme winter and summer external conditions of, respectively, 30 degrees F. with air at 78 per cent. relative humidity, and 80 degrees F. with 58 per cent. relative humidity, have been allowed for. A volume of air is provided equal to six complete changes per hour. Of the air supplied, 90 per cent. is returned to the plant room, where it can be re-used. The installation also supplies clean air free of dust particles. Before entering, all the air passes first through a cloth screen, specially woven to provide for maximum interception of dust particles, then through a water-spray chamber.

The hot-water mains serving the existing radiator heating system have been extended to provide for the heat requirements of the new air-conditioning plant.

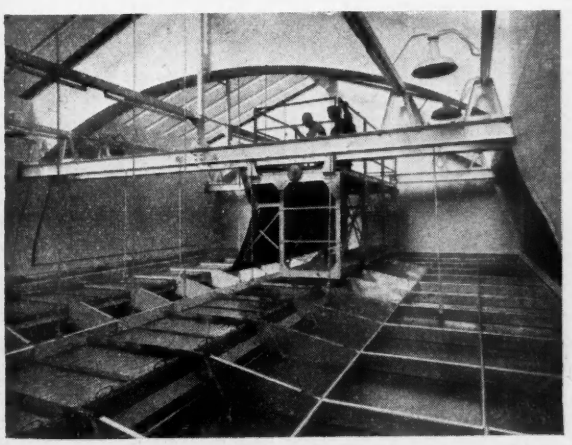


General view above the glass ceiling.

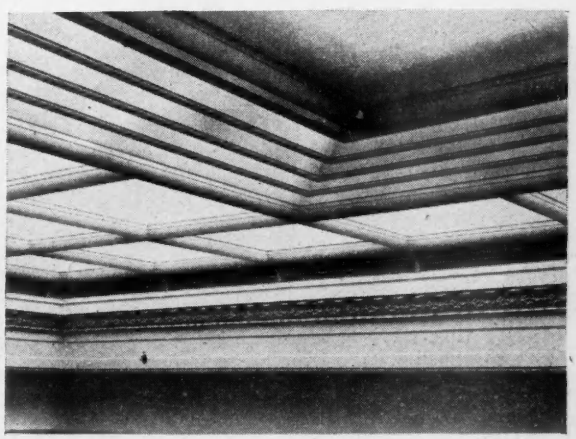
The Lighting System.

The research carried out by the Department of Scientific and Industrial Research on the use of natural lighting revealed that accurate control of daylight intensities was possible in a picture gallery, but required a relatively low ceiling and consequently a complete alteration in the proportions of the gallery. Because of this, the attempt to obtain such accurate control was dropped in Gallery XXIX. The present scheme has been approved by the Royal Fine Art Commission.

Up to about 20 years ago the National



View showing the supplementary light fittings at high level above the glass ceiling, and a travelling platform with the upper deck in use.



A corner of the ceiling showing the louvres for artificial lighting and the high-level grilles for entry of air. The louvres have been flock sprayed.

Gallery had to be closed at dusk, for there was no artificial lighting. When high-powered tungsten lamps in carefully designed lanterns were provided, the wall illumination was thought to be extremely good—at 3 to 4 ft.-candles. With the new fluorescent tube lighting intensities of 15 and 20 ft.-candles are achieved. The new system is intended to provide sufficient illumination of good colour-rendering quality from a concealed source. The glass ceiling is suspended 21 feet above the floor; this laylight insulates the room against temperature losses through the glass roof. It also screens the artificial light fittings which are so designed that they do not interfere with the natural daylight. The glass has been made specially for the purpose. Unlike ordinary glass, it does not alter the colour of sunlight; this is of great importance in a picture gallery.

The artificial lighting is obtained from five continuous lines of fluorescent lamps around the room, concealed within a system of deep louvres which form a pattern in the laylight. Daylight is allowed to pass between the louvres in such a way that no heavy dark bands or shadows appear in the laylight during daytime. In addition to the main lighting there are, above the laylight, a few fluorescent and ordinary filament lamps, the light from which serves to prevent the black appearance of the glass at night. The filament lamps also add a warm appearance to the general lighting. To maintain the equipment, and for polishing the large areas of glass, four two-deck travelling platforms have been designed to move horizontally above the glass ceiling. From the two decks, work can be carried out at all points between the laylight and the roof ridge. The platforms are easily operated by hand.

The floor, formerly of oak with a slate border, is now of polished cork tiles, which are quieter and softer to the tread. The walls are covered with a damask fabric of silk and wool.

Five other galleries, which can be fed from the existing plant, will be treated in the same way as Gallery XXIX if the experiment proves successful. The ultimate aim is to have all the rooms in the Gallery air-conditioned, and all the pictures clean and unglazed. It is found to be not easy to select the small number of pictures which can be hung in this one specimen room. To collect the most delicate pictures in the Gallery together would mean a hotch-potch of different Schools, and an unsightly collection; whereas the new room is also intended partly as a demonstration of improved exhibition technique, for air-conditioning makes it possible also to keep the room itself clean, which allows the use of textiles on the walls and upholstered furniture. The Italian panel pictures of the fifteenth century happen to include many of the most important pictures and many of the most delicate. So the pictures chosen are all Italian; and are as near together in date as possible. Some pictures there—e.g., Leonardo's "Madonna of the Rocks"—have recently been cleaned; and others, now being cleaned, are to be added—e.g., Piero della Francesca's "Nativity" and Giovanni Bellini's "Madonna of the Meadow" and "Circumcision." These will not be ready until November; meanwhile their places have been filled by less important pictures. It will not be until about November that the arrangement of the room will be considered reasonably permanent.

D.S.I.R. Leaflets.

The Department of Scientific and Industrial Research, Forest Products Research Laboratory, Princes Risborough, Aylesbury, Bucks, have recently issued supplement No. 1 to leaflet 44, "The Seasoning Properties of Exotic Timbers" and leaflet No. 46, "Marine Borers and Methods of Preserving Timbers against their Attack." Both of these publications can be obtained, free of charge, from the Laboratory.

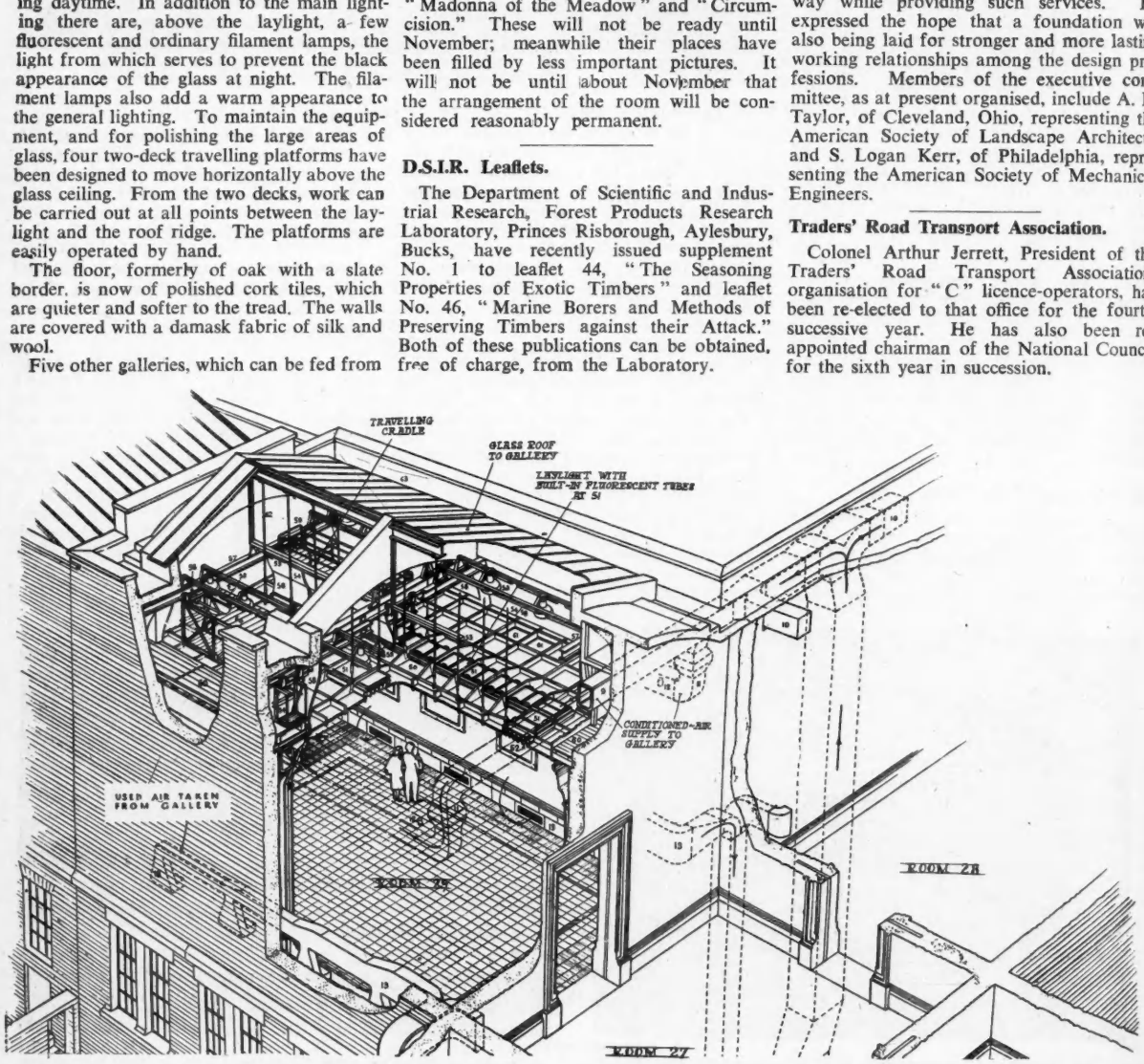
U.S. DESIGN PROFESSIONS

AN EFFORT to co-ordinate the services of technical people engaged in large-scale construction design is being made by a recently formed emergency committee headed by Roy F. Larson, of Philadelphia, representing the American Institute of Architects, the Institute announced on August 12. The step parallels the formation of effective but temporary interprofessional committees to define professional responsibilities under the war housing programme in 1940, and the veterans hospital programme after the war. Formation of the committee was welcomed by Mr. R. Walker, president of the Institute, and by those present at this initial conference, as a move toward real and continuing collaboration among architects, engineers, landscape architects, mechanical engineers, city planners, and others in the design professions.

The president emphasised that the committee's work would allow all qualified technical individuals having specialised professional abilities to be of maximum service to the government in this emergency and also to collaborate effectively in the most efficient way while providing such services. He expressed the hope that a foundation was also being laid for stronger and more lasting working relationships among the design professions. Members of the executive committee, as at present organised, include A. D. Taylor, of Cleveland, Ohio, representing the American Society of Landscape Architects, and S. Logan Kerr, of Philadelphia, representing the American Society of Mechanical Engineers.

Traders' Road Transport Association.

Colonel Arthur Jerrett, President of the Traders' Road Transport Association, organisation for "C" licence-operators, has been re-elected to that office for the fourth successive year. He has also been re-appointed chairman of the National Council for the sixth year in succession.



THE NATIONAL GALLERY. Diagram showing roof construction of Room 29.

BUILDING INDUSTRY'S TEAM TO U.S.A.

Quantity Surveyors Discuss the Report

THAT quantity surveyors must do all that lies in their power to defeat the apathy and frustration they meet at every turn and instead of saying that they cannot get on with the job because they have not got this and they have not got that, endeavour to carry out their work more expeditiously and efficiently, were views expressed by Mr. M. H. Thackray, F.R.I.C.S., one of the quantity surveyor members of the Team, when he opened a discussion on the "Report on the visit to America of the Building Industry Investigation Team" at a general meeting of quantity surveyor members of the Royal Institution of Chartered Surveyors, held at the Institution of Mechanical Engineers in June.

MR. THACKRAY opened by giving details of the team itself, pointing out that with so many sections of the industry represented, there were bound to be very sharp differences of opinion on almost any aspect of the building industry, which, in fact, proved to be the case, but that the team did produce a unanimous report in the conclusion. After detailing the team's itinerary and pausing while a film of the tour was shown, Mr. Thackray turned to those matters which were of more particular interest to quantity surveyors, and we give the following extracts from his subsequent remarks:

First I should mention that the procedure in the letting of contracts and the settlement of final accounts in America differs very greatly from our procedure here. It has been common knowledge for many years that the professional quantity surveyor as we know him does not exist in the United States, and that entirely alters the overall picture both of the letting of contracts and of the finalisation of accounts.

American Surveyors.

There is, of course, a number of so-called surveyors in America. They work under a varied list of denominations, such as measuring surveyors and construction surveyors, and some even have the temerity to call themselves quantity surveyors, but the use of the term "quantity surveyor" is not popular.

It might be of some interest if I touched lightly on the various people that we met who came under the heading of "measuring surveyors." The Association of General Contractors have at their headquarters in Washington an approved list of measuring surveyors, by which they mean that they would recommend those surveyors to contractors because they are reasonably accurate. That list is an amazingly short one. I cannot remember the exact number of names on it, but I think there were only 12 or 15 for the whole of the United States! As these measuring surveyors have no professional standing in the industry, we did not meet them officially at all, so, as Mr. Hill, the other quantity surveyor member of the team, and I wanted to find out how they worked, what they did and how they were paid, we had to seek them out; otherwise we should never have met them.

The first one we managed to run to earth was in Washington; he was a gentleman by the name of Mr. Ed Scharf. To begin with we thought we were going to have difficulty in persuading him to talk, but after we had been with him for about three hours we realised that we should have some difficulty in stopping him, and ultimately we spent rather an exhausting evening. We did, however, learn a great deal from Mr. Scharf, and it was confirmed later on in our tour that he was typical of American measuring surveyors. He worked exclusively for contractors, and his quantities were very approximate indeed. He described to us how he used a small scale map measurer, with a little wheel on it, and ran that around the plans. He dictated his measurements to his one and only assistant. He described to us how he did this, and after he had been talking for a little while he said: "You will notice that I do not say anything about inches; we do not bother about inches." When we questioned him about time, he said: "I have just finished a job. It was a $500,000 (about £175,000) job, and, being rather tricky, it took me a day and a quarter." When we looked aghast he said. "Yes, a normal job of that size I should do in a day." And he really meant it!

The charges of measuring surveyors were assessed, as far as we could understand, on what was considered fair and reasonable on a time basis.

The only surveyor we met officially was in Boston, and it may be a coincidence but he was an Englishman by birth and was at one time a Professional Associate of the Institution: Mr. Leslie Allen by name. His outlook on quantity surveying was rather different from that of the other people with whom we talked.

In New York there were actually one or two firms of surveyors; I think it was the only place where we found anything in the nature of a firm. The biggest of these was called H. P. Sloane Associates. I tried to contact Mr. Sloane personally, but he was out of New York at that time. Since we returned to England, however, Mr. E. C. Harris, F.R.I.C.S., has met Mr. Sloane both in London and in New York, and I have no doubt that he will say a few words about him. From what Mr. Harris has told me, I gather that the volume of work which Mr. Sloane turns out by his curious methods even astounded Mr. Harris.

We brought back with us some of the bills that are produced and there are others that have come over to this country and are available to anyone who is interested. The outstanding point about them appears to be that the description given to each item is very brief (it might even be called terse), because it has to be understood by only one contractor or one estimator and he may in fact take it off himself. Even if one of the independent surveyors takes it off the estimator knows what one word or a few words mean. Therefore, although there may be a very considerable number of items in one bill, it is still a very short bill.

Without bills of quantities, of course, the procedure for letting contracts and settling final accounts is entirely different from what it is in this country. In this connection I would commend to your careful study chapter 4 of the report, where we have tried to set out the American procedure and have added some paragraphs about the British method, because this report will be read in America as well as in this country. We have also given a comparison of the two methods, but you will realise that we have not attempted to say which is the better of the two. We all have our own views about that, and it is not a question for this meeting or for the team to decide, but I would say that, in the discussions which we had during our six weeks in America, practically every architect, as well as many of the builders, agreed that our system was the better.

Cost Comparison.

Another matter which intimately affects quantity surveyors is the comparison of costs in the two countries. In chapter 2 of the report (page 15, paragraphs 29 and 30), we give an assessment (and it can only be an assessment, taken from the average of a very large number of experiences) of the output of labour on certain individual site operations, and we follow that with our views on the comparison of British and American costs, by which is meant breakdown costs. *i.e.*, labour, materials, site supervision, overheads, profits and so on. In appendix A (page 67), which most of you may find extremely interesting, we give the average overall costs of certain types of building in the United States, *i.e.*, cube costs or, in the case of factories, costs per superficial foot of floor area. In appendix B (page 67), we give average unit prices for certain items, such as concrete and brickwork, including overheads and profits. In appendix C (page 68) there is a list of some materials prices in the United States.

Having studied that, you may still wonder what it all amounts to, and if you do you will be in fairly good company, because my colleague and I had the greatest difficulty in getting over to the team the answer as we saw it. But it boils down to the fact that there is no insoluble mystery. We have been told in years gone by that, in spite of paying very high wages, the Americans can still build for about the same cost as we do in this country, but it was at once evident to all the members of the team that this was not correct. We assess that building in the United States costs from 50 to 80 per cent. more than it costs here, which is what we surveyors wanted to find out more than anything else in America.

I should like to utter a word of caution with regard to these comparisons of costs in the two countries. The figures for American costs quoted in the report will undoubtedly be questioned on both sides of the Atlantic, but we must realise that the United States is of continental dimensions and the labour rates and prices of materials vary from State to State (the prices of materials in particular vary enormously), so that to arrive at an answer we had to take an overall average.

I was going to mention the question of cost information services, a matter to which Sir Thomas Bennett referred in a paper entitled "Cost Investigation," which he read at a general meeting of quantity surveyors in April, 1946, but, in view of the shortage of time, I will only remind you that Sir Thomas suggested that we badly needed a cost information service in Britain. This suggestion was given serious consideration by a sub-committee of this Institution, but it was decided that it was not practical in the immediate post-war era. One of the major difficulties was to find the suitable central body which Sir Thomas suggested should run the service. In the United States,

however, we found the answer in "The Dow Service Real Estate Valuation Calculator," which has in it an amazing amount of information collected from all over the United States.

Quantity Surveyors and Productivity.

We now come to an important question: how can we as a profession play our part in this drive for greater productivity? In chapter 10 (the final chapter of the report, entitled "Conclusions and Recommendations") it will be seen that there is no reference to the contribution that the quantity surveyor can make. That is not just mischance; it is intentional. In the absence of professional quantity surveyors in the United States we could pick up no tips on the subject, but that is no reason for any of us to feel full of self-satisfaction and smugness.

The Quantity Surveyors' Committee has already entered into negotiations with the builders to go into such matters as possible simplification of the Standard Method of Measurement and any other items which fall as a joint responsibility on the builder and the surveyor. Apart from that, there are at least two ways in which each individual quantity surveyor can assist.

First (and this was brought out very much by what we saw in the United States) we should all undoubtedly lend our wholehearted support to resisting the ever-present pressure to commence work on a site before the scheme has been properly planned. We all know that it is difficult for the quantity surveyor to do that when the architect and the building owner say that a start must be made, but I would say this: do not take the line of least resistance and prepare what can only be approximate quantities. We must raise our voices in protest and try to call a halt to this ever-increasing practice, which is at the root of so many of the troubles of the building industry to-day.

Secondly, we must do all that lies within our power to defeat the apathy and frustration we meet at every turn. Instead of saying that we cannot get on with the job because we have not got this and we have not got that, we must endeavour to carry out our work more expeditiously and efficiently. One has only to see the rapidity with which tenders are submitted and final accounts settled in the United States to realise that, although it may very often not be our fault, we quantity surveyors are doing grievous harm to our profession by the months and months of delay in the preparation of bills and, in the finalising of accounts, years and years of delay. We must do all that we can to stop that.

In concluding, Mr. Thackray said that he found the whole tour most inspiring and that it was an experience that he would not have missed. He considered that opinions would without doubt differ very much about the results which would be obtained from the productivity viewpoint, but the interchange of ideas and the intermingling of the representatives of the two countries must be of considerable benefit to future international relations. He thought it was true to say that all the members of the team set out full of curiosity, and returned full of admiration.

MR. H. A. ACKLAND, F.R.I.C.S., in proposing a vote of thanks, congratulated Mr. Thackray on the way he had introduced the report, and on the subject of pre-planning said that all planning must be pre-planning, unless one was prepared to recognise retrospective planning! Architects had done their share, but even in 1950 there was the spectacle of plans, specifications and bills of quantities all ready, and even tenders in, and then a ghastly hiatus whilst some invisible power pondered the desirability or otherwise of cutting the first sod.

MR. W. D. BRISTOW, A.R.I.C.S., who seconded the vote of thanks, said that in Great Britain a bill of quantities was one of the tender documents, and quantity surveyors in this country liked to regard their system as an advance on the American system and an additional safeguard to all the parties concerned. They had, however, a responsibility which went to the root of one of the points made in the report, namely, the accuracy of tender information. Mr. Bristow commended to the meeting the thought that any bill of quantities which in any respect at all gave information which was less accurate or detailed than the information on the drawings from which it was prepared failed to meet the challenge in the report. Quantity surveyors were nearly always rushed, but if they needed more time to do their work properly they should ask for it. It was time well spent. Mr. Bristow felt that there was still a certain suspicion and lack of understanding between individual architects and quantity surveyors, and suggested that, in the case of all quantity surveyor meetings, an official invitation should be sent to the R.I.B.A., asking that architects who were interested should be encouraged to attend the meeting and take part in the discussion. Without architects, quantity surveyors would not exist at all, and nothing but good could arise from any closer liaison between them.

MR. D. D. YEOMAN, A.R.I.C.S., said that Mr. Thackray had referred to a measuring surveyor in Washington who took off quantities for a £175,000 job in a day and a quarter, and he would like to ask whether the document produced by that gentleman enabled a contractor to submit a keen and accurate tender

MR. E. C. HARRIS, F.R.I.C.S., said that he had had the privilege last summer of meeting Mr. Sloane in London and subsequently, in February of this year, he had visited New York and spent two or three days in Mr. Sloane's company. He returned with a feeling of great disappointment that he had not been to New York many years ago. He had had an opportunity of studying Mr. Sloane's methods, and he could answer Mr. Yeoman's question in the affirmative. The bills of quantities produced in the United States did serve their purpose. Their preparation was team work brought to the acme of perfection. When Mr. Harris was in New York Mr. Sloane was at work on a $6,500,000 (£2,250,000) project for which he was allowed seven days. It might be thought that that was impossible, but it was actually done. Mr. Harris had with him the result of the work; it was a bill of quantities of about 17 pages, with 62 lines of type on a page, but the quantities were reasonably accurate. The takers-off had avoided all the descriptions used in this country by employing symbols, every item being marked X2, M3, or similarly, and the operator, usually a young woman, who translated the dimensions into the bill, knew exactly what all the symbols meant. The use of symbols ensured a very brief description, because, as Mr. Thackray had pointed out, the estimator who priced the bill had the advantage of a complete set of drawings at his side, and, if he was in doubt about the actual significance of, for example, some moulded bricks, he merely referred to the drawing. In Britain the contractor had to rely on the very meticulous description of the items by the quantity surveyor if he was to avoid error.

MR. N. STANLEY FARROW, speaking as a visitor, said that he had been very much impressed in America by the pride which everyone, from the architect to the operative, had in the industry. He thought that in this country, owing to the ill-informed criticism of the building industry, those engaged in the industry had lost some of their pride in it, which he hoped they would recapture.

OBITUARY

Harold Percy Williams, F.R.I.B.A.

It is with regret that we record the death, at the age of 72, of Mr. Harold Percy Williams, F.R.I.B.A., who for many years practised in Halifax and was official valuer to the Halifax Permanent Building Society, whose head office he designed. He was a partner in the firm of Clement Williams and Sons, which won competitions for Sunnyside Schools, Halifax, and extensions to the Halifax Co-operative Stores.

Other buildings in Halifax designed by the firm included: the Victoria Concert Hall, St. Luke's Hospital, York Buildings, Victoria Buildings, Post Office Buildings, the Workhouse Administration Offices, and the Café Royale.

In addition, Mr. Williams prepared layouts for several estates and schemes for blocks of dwellings, etc., at Shaw Lodge, Halifax; also plans for many other residences. He was elected a Fellow of the R.I.B.A. in 1947.

COMPETITIONS OPEN

AUSTRALIAN WAR MEMORIAL. Promoted by the Australian Battlefields Memorial Committee. Premiums: £250, £150 and £50 (Australian). Conditions from the Official Secretary, Commonwealth of Australia, Room 115, Australia House, Strand, London, W.C.1. Closing date, September 1. *March* **17, 1950.**

EXTENSION TO MEDICAL SCHOOL, EDINBURGH UNIVERSITY. Promoted by the University of Edinburgh. Premiums: 1,000, 600 and 300 gns. Assessor: Mr. A. G. R. Mackenzie, A.R.S.A., F.R.I.B.A. Conditions from the Secretary to the University, Edinburgh, on deposit of £2 2s. Closing date: September 30, 1950. *December* **9, 1949.**

CITY HALLS AND OFFICES, NAIROBI. Promoted by the Municipal Council of Nairobi, Kenya. Premiums: £550, £450 and £250. Assessor: L. W. Thornton White, F.R.I.B.A. Conditions from Town Clerk, P.O. Box 651, Town Hall, Nairobi, Kenya, on £2 2s. deposit. Last day for posting designs: October 19, 1950. *January* **27, 1950.**

COVENTRY CATHEDRAL. Promoted by Coventry Cathedral Reconstruction Committee. Premiums: £2,000, £1,500 and £1,000. Assessors: Sir Percy Thomas, LL.D., D.L., P-P.R.I.B.A., Mr. Edward Maufe, R.A., M.A.(Oxon.), LL.D., F.R.I.B.A., and Mr. Howard Robertson, M.C., A.R.A., F.R.I.B.A. Conditions from Secretary of Reconstruction Committee, 22, Bayley-lane, Coventry, on deposit of £2 2s. Latest date for applications for conditions: October 30, 1950. Closing date: July 2, 1951. *August* **4, 1950.**

Dates in italics at the end of paragraphs refer to issues of "The Builder" in which details of the competitions appeared.

R.I.B.A.

Diploma in Town Planning

AT THE EXAMINATION held in July last Mr. Arthur Roger Pearce, A.R.I.B.A., was successful and has been awarded the R.I.B.A. Diploma in Town Planning.

TRADING WITH CANADA

Mr. James S. Duncan's Views

AN article in the "Board of Trade Journal" for August 5, by MR. JAMES S. DUNCAN, C.M.G., chairman of the Dollar Sterling Trade Board, outlines the help which this Board (the Canadian counterpart of the U.K. Dollar Exports Board) can offer to Sterling Area suppliers and also the situation, as he sees it, of Anglo-North American trade.

Dollar-Sterling Board Activities.

The Dollar-Sterling Board, writes Mr. Duncan, is made up of private citizens drawn from the widest spheres of Canadian activity. It includes representatives of manufacturing, transportation, the distributive trades, finance, labour and agriculture. All these people bring their collective knowledge and experience to the task of developing, expanding and expediting our trade with the Sterling Area. We have gone into industry to recruit personnel as technical advisers. We now have these advisers in several fields, including steel, coal, chemicals, machinery and processed foods.

In carrying out its objectives, the Board operates in several different ways. For example, Canadian imports are thoroughly analysed to determine what items are imported from the Dollar Area which could be transferred to the Sterling Area. Where it appears that a commodity is transferable —and meets Canadian requirements of price, quality and service—we bring heavy pressure to induce purchases from the Sterling Area.

The Board supplies advice, directly or indirectly, to Sterling Area suppliers on such things as advertising, marketing, packaging, styling, pricing and distribution. We assist importers in procuring supplies from the Sterling Area, in expediting deliveries and in resolving any difficulties which may arise from their mutual relationship. We engage in publicity and educational work to inform the Canadian public of the nature and urgency of the Dollar-Sterling trade problem. It is important to remember that the function of this Board is not to increase the over-all or aggregate level of our imports. If you examine our balance of trade, you will discover that our surplus is negligible. There is, therefore, no room for the expansion of the over-all level. What we must do is to divert a portion of our existing U.S. imports to the Sterling Area.

You might well ask at this point—what is the attitude of United States industry to such a proposal? The answer is a simple one: Canada is the biggest and best customer of the United States throughout the world. Last year the U.S. exported to Canada $1,950 millions worth of goods. The United States has, therefore, a very profound interest in our prosperity, and it is axiomatic that we cannot be prosperous if we are unable to sell our agricultural surpluses. These must be largely sold overseas, and they cannot be sold overseas unless our customers have dollars to buy them.

It is interesting to consider, then, that if we can divert only 16 per cent. of our present imports from the United States to the United Kingdom, our present imports from the United Kingdom would be increased by nearly 100 per cent., that is, by a sufficient margin to close the gap in our bilateral trading account with that country.

This result cannot be accomplished by an increase in British exports to us in consumer goods alone. As a nation of only 13 millions, there is a decided limit to our absorptive capacity for consumer goods. In order to close the gap, it is essential that the United Kingdom capture a portion of our market for imported machinery, of raw materials, and of component parts of industry.

Now, I do not propose to debate the virtues, or otherwise, of protectionism. It is a sentiment which is certainly understandable. Living, as we do, under the shadow of the world's greatest industrial nation, where a fortnight's production-run at the end of a year in one industry is often greater than our whole year's output, we can certainly be excused for apprehension. Nevertheless, I believe that it would be a great mistake to allow the difficulties of the few to interfere with a drive which is calculated to benefit the nation as a whole.

Two Possible Lines of Development.

As I see it, there are two possible lines of development. Britain may recover and prosper, in which case we shall preserve the market for our agriculture and extractive industries, and our nation as a whole should prosper, although British industries would compete in our home market more than at present. Alternatively, if Britain does not recover, she will compete less vigorously, but we shall have lost the market for a large portion of our agricultural surpluses.

As a Canadian manufacturer myself—and incidentally one whose industry operates without the benefit of any tariff protection at all—I think it is preferable to take our chance with competition in a growing and prosperous market, than to face the other alternative.

Government policy on this question of protection is perfectly clear. The Prime Minister, in what I thought was a very courageous statement to the House on February 20, stated: "I have said that the impact of the devaluation of Sterling has meant some distress to a few of our industries. That was foreseen, and it is something which I think we just must not attempt to prevent. For the good of the nation in general, we want an increase in the exports of Great Britain to ourselves. . . ."

It seems to me that this is the only attitude to take. We cannot eat our cake and have it too. If we want the Sterling Area to go on taking our agricultural surpluses, we must provide them with the dollars to do so. There are only two ways of providing the dollars—either we must continue making loans or gifts, or we must let them pay their own way by earning dollars in this market.

Meanwhile, as we have said before, the energies of our Board are concentrated, not upon importing goods into Canada, but in diverting our imports from the Dollar to the Sterling Area, and to the extent that this can be accomplished, so will the damage done to our own industries be correspondingly small.

HOSPITAL FOR SICK CHILDREN, University-avenue, Toronto, Ontario. Govan, Ferguson and Lindsay, Architects.

BUS TERMINAL STATION, EDMONTON, ALBERTA. Rule, Wynn and Rule, Architects.

Devaluation an Opportunity for U.K.

Devaluation has given the British a wonderful opportunity to score a big success in this market. The opportunity must be seized immediately, because it is inevitable that following the depreciation of a currency, costs must move upwards. For a short period after devaluation, there was, indeed, some doubt whether or not the competitive advantage in devaluation would be reflected in higher sales. British exports have, however, forged ahead, and the figures for the first quarter of this year are most encouraging. In March, for the first time in history, we actually had an unfavourable balance of visible trade with the United Kingdom. They sold us more than we sold them.

In closing, may I say just a word in connection with the effect on our international trade of our expanding Canadian resources. Personally, I am very optimistic about the future which lies before us in this respect. To my way of thinking, we are on the threshold of an entirely new era of productive development in this country. Valuable resources are being uncovered and developed continuously—oil in Alberta, iron and titanium in Labrador and Quebec. All these discoveries, these new developments and others which will follow under the impulse of the dynamic quality of our people, will go a long way towards balancing our trading accounts with the United States.

July Exports to North America.

The provisional value of United Kingdom exports to the United States in July was £11.3 million ($31.7 million), the highest figure yet achieved in the export drive. Exports to Canada, provisionally £10.5 million (U.S.$29.3 million), although lower than in May (£12.4 million), were above the average for the second quarter, giving a combined figure for exports to North America equivalent to U.S. $61.0 million, 25 per cent. above the average for the second quarter and 21 per cent. higher than the average for the peak fourth quarter of 1948.

EXEMPTIONS FROM DEVELOPMENT CHARGE—1

The Town and Country Planning (Development Charge Exemptions) Regulations, 1950 (Statutory Instrument, 1950, No. 1233)

By Norman P. Greig, B.A., Barrister-at-Law.

THE above Regulations were made by the Minister of Town and Country Planning on July 11 last, and approved by Resolution of the House of Commons on July 24, and the House of Lords, July 25, in accordance with Section 69 (5) of the 1947 Act requiring such approval by Resolution.

They are made under Section 69 (2) (b) of the 1947 Act, and their purpose is to specify *the operations and uses of land which are exempt from development charge.* They replace the Town and Country Planning (Development Charge Exemptions), Regulations, 1948 (S.I. 1948, No. 1188). The main differences between the two sets of Regulations are that the amount by which a dwelling-house can be enlarged on rebuilding or otherwise is increased; that a new exemption is introduced in regard to the conversion of houses into flats; and that the changes of use which may take place without charge are considerably extended.

Exemptions from Development Charge

By paragraph 3, the operations and uses of any description specified in the schedule to the Regulations are to be exempted from the provisions of Part VII of the 1947 Act (which deals with development charges). Only matters of interest to those in any way connected with the building industry are noted below.

1. Rebuilding, enlargement, improvement or alteration of buildings.

For the purposes of this paragraph—

(a) The erection on land within the curtilage of any such building as is mentioned in this paragraph of an additional building to be used in connection with the original building, is to be treated as the enlargement of the original building; and where any two or more buildings in the same curtilage are used as one unit for the purpose of any institution or undertaking, then any references to the cubic content of the original building is to mean the aggregate cubic content of those buildings. (This, of course, follows the wording of Class I of the Schedule to the 1948 Regulations.)

(b) "Building erected after the appointed day" is to include a building in course of erection on that day (July 1, 1948), but is not to include a building *substituted* for a building erected before the appointed day by the carrying out of any rebuilding operations.

Buildings to which the Third Schedule to the Act applies:

(1) Rebuilding, as often as occasion may require, of any building in existence (on July 1, 1948), and of any building which was in existence before that day but has been destroyed or demolished since January 7, 1937 (including the making good of war damage sustained by such building), so long as the cubic content of the original building is not exceeded, in the case of a dwelling-house, by more than one-tenth or *seven thousand five hundred cubic feet,* whichever is the greater, and in any other case by more than one-tenth, or where the original building, *or any building substituted therefor,* has been enlarged in conformity with the Act by more than one-tenth or *seven thousand five hundred cubic feet,* as the case may be, so long as the cubic content after rebuilding will not exceed the cubic content of the building as so enlarged. (The 1948 Regulations, now superseded, laid down the limitation of 1,750 cubic feet.)

(2) The enlargement, improvement or other alteration, as often as occasion may require, of any such building as mentioned above, *or any building substituted therefor,* by the carrying-out of any such operations as mentioned above, as long as the cubic content of the original building is not increased or exceeded, in the case of a dwelling-house, by more than one-tenth *or 7,500 cubic feet,* whichever is the greater, and in every other case by more than one-tenth.

Buildings erected after the appointed day (see the interpretation of these words, above).

(3) The rebuilding . . . of any building erected after (July 1, 1948), *so long as the cubic content of the building first erected* after the above date is not exceeded, in the case of a dwelling-house, by more than one-tenth *or 7,500 cubic feet,* whichever is the greater, and in any other case by more than one-tenth, *where the building first erected after (July 1, 1948), or any building substituted therefor,* has been enlarged . . . by more than one-tenth *or 7,500 cubic feet,* as the case may be, so long as the cubic content after rebuilding will not exceed the cubic content of the building as enlarged.

(4) The enlargement, improvement or other alteration, as often as occasion may require, of any building erected after (July 1, 1948), so long as the cubic content of *the building first erected* after that date is not increased or exceeded, in the case of a dwelling-house, by more than one-tenth *or 7,500 cubic feet,* whichever is the greater, and in any other case by more than one-tenth.

(*Note*: "Cubic extent," for the purpose of these Regulations, means cubic extent as ascertained by external measurement.)

(*To be continued.*)

NEIGHBOURHOOD PLANNING

The Growth of Communities

AN outline of the historical development which has resulted in our present ways of living and some of the problems involved in creating smooth-running neighbourhood units were included in a paper by MR. L. E. WHITE, read recently at the Housing Centre, London.

Mr. White began by saying that at the time when the industrial revolution began, most people lived in small communities, such as villages, which were more or less self-contained. These were mixed communities, in which the squire and the labourer lived close to each other. People who lived in these communities worked there also; their work was known to their neighbours, and they did a job which other people could see and understand. The whole community was very much dependent on its own resources. Its focus was the parish church, with the village green and the inn near by.

A change first came with the industrial revolution, which broke the pattern of the old community. People began to come together in great towns, where large factories employed masses of workers. This was how the slums started. Then came the beginning of the formation of social groups which, as time went on, became more and more marked until to-day there was an almost complete segregation. Housing estates were built for one type of person only, so that certain parts of the cities, such as London's East End, became working-class districts, while the nicer parts were inhabited by those with higher incomes.

Housing Reform and Planning.

In this way, the speaker continued, towns grew up which were so unpleasant to live in that people tried to get out of them. Then came the beginning of housing reform and town planning, and the towns began to stretch out long tentacles into the country; this movement was helped by the advent of the motor car. This expansion still further broke up the pattern of community living.

After the first world war we had the beginning of the building of housing estates. Four million houses built in this period were mostly on these great estates, which were the complete opposite of the old village communities. The people all came from one income group (sometimes they had been moved from slum-clearance areas) and because these were one-class neighbourhoods they were often lacking in the sort of people who could give leadership. No thought was given to planning because in those days we did not understand planning for the community. The houses themselves were on the whole good, and they had gardens, so that in this respect the new estates were a great improvement on the conditions in which people had been living, but no thought was given to the social needs of the people as a whole. There was no common building in which people could meet. The church, which in the past was the centre and focus of village life, was absent, or came late.

When people first moved to these estates, they found life very lonely. The quiet, after all the noise and bustle of the city streets, was oppressive to them. Often they did not like it at all, and sometimes even chose to return to the town.

Then there was the transport difficulty. These housing estates were mere dormitories, where people lived and slept. They still had to go back into the city centre to find work. Fares were heavy. They resented the time spent travelling. They were tired when they got home at night, and found they had less leisure than before. With a very little more thought these estates could have been so much better.

Shopping facilities were quite inadequate. On one estate there were as few as six or seven shops for a population of 5,000. This complete failure to plan for the everyday human needs was typical of this type of estate.

There was of course the other sort of one-class estate where the wealthier people lived, and which was privately built. They were often referred to in such terms as "the stock-broker's paradise." Here there might be plenty of people with talent and ability to give vitally needed leadership, while a little

way off would be a slum clearance estate crying out for leadership.

Need for a Social Centre

Mr. White said that the greatest fault of the inter-war estates was the lack of a social centre, and a movement started in the 1920s to meet that need. The community centres movement began under the auspices of the National Council of Social Service. It was a voluntary movement and relied on voluntary resources, but nevertheless by the time the war came there were nearly 100 centres already in existence, and as many more planned. During the war, of course, these plans were held up and so the problem was never really solved. However, it had been recognised, and it was realised that something must be done about it.

During the war much thought was given to post-war estates, the redevelopment of our towns, and the use of open spaces created by bombing. How could estates be made into living communities? An idea began to emerge.

The new towns, it was agreed, said Mr. White, should have some definite boundary, and they should be self-contained without being shut off from the rest of the world. They should be able to supply the needs of the people living in them. Shops should be provided, entertainment facilities, churches, halls, a branch library, parks, playing space and schools. Primary schools were particularly important, because small children ought not to have to cross a main road on their way to school.

These new communities were to be mixed ones, so that the old evils of the one-class estate did not arise again. Before the war, the tendency had been to build the same type of accommodation throughout an estate; but what then happened when the children grew up, and wanted to marry and have a house of their own? They had to move away, and there was no sense of continuity on the estate. We had learnt now that in our new communities we must have all kinds of accommodation; small dwellings for old people and single people; small houses for small families, and larger ones for big families; and also more expensive houses for those who could afford them.

There must be some focus or centre to these new communities, and they must be carefully planned. Industry must be situated within easy reach of the neighbourhoods, so that it was readily accessible to the workers, but not near enough to spoil the residential areas.

Repetition of Mistakes.

Many plans were formulated during the war, and a great deal of interest was shown in them. And yet to-day we had still not completed a neighbourhood unit. It was largely owing to the housing queue that all these plans had, up to now, been frustrated. How could one build community amenities while there were still so many people who had not a home to live in? It was unfortunate that it should be so, but hard to see what else could have been done.

Everyone from Cabinet ministers downwards had said that we must never again make the mistakes of the inter-war years, and yet it was already happening again.

The speaker said he had every sympathy with councils who tried to make their new estates as good as possible. The St. Paul's Cray L.C.C. estate showed what advances had been made since the inter-war period. The plan was wonderful, but when it came to putting it into practice, it had been found that much had had to be omitted that was known to be desirable.

The tendency up to now had been to concentrate on building houses, and priorities had not been given for community buildings. The housing programme was judged on the number of people rehoused, without thought being given to the fact that we must at the same time create communities. It was difficult to see how at the present time resources could be diverted from house building, but at least some kind of temporary hall could and should be provided, just as aluminium schools and emergency hutting had been provided. Something on these lines would serve the purpose of a community hall.

The community association on the St. Paul's Cray estate felt at the outset that one of the most useful things it could do would be to produce a directory with a plan of the estate and particularly of shops, bus services, doctors, hospital services, post offices, telephones, etc. Tenants moving into a new estate had all the joy of their new houses, but they had to learn their way about it. He recalled an early meeting of the community association held in a Nissen hut, lit by a hurricane lamp and heated by an old boiler stove. People came in and out of the dark, and often did not know where they were, because the roads were not named, or children had removed the name plates. This was the type of problem which had to be dealt with to-day in community planning.

Discussion

Speaking in the discussion which followed MRS. ALLEN thought it would be a good thing if father could get his glass of beer, mother her cup of tea, and the children their ice creams all under one roof. MR. WHITE said there had been some experiments on these lines. It had been tried out at Peckham, and worked well, but there had been other places where it had not worked so well. Success depended probably on the manner of approach. The history of the working men's clubs linked up with this point.

It always struck him as one of the strangest ironies in the history of social development that these clubs were started as a temperance experiment by Christian people and temperance reformers. It was soon found, however, that they could not get the men to join unless they had a bar. These social clubs were started with high educational aims, but things gradually changed until they became places where people could get a quiet drink and have a game of billiards. Knowing this, one wondered how community centres would develop. They were not intended to be simply places where people could foregather; their purpose was partly educational. No one knew yet how far the social element could be mixed with the educational.

The Tenants' Attitude.

MISS LUPTON asked whether it was found that people wanted to be friendly, or whether they preferred to sit in their own homes, and not even speak to each other over the garden wall. Could isolationism be conquered at the beginning if there was a community association, or did this come later? MR. WHITE said the evidence showed that people did want to come together, and they enjoyed talking to each other over their garden fences. At the beginning people were often quite content and busy with their houses and gardens, but after a time they began to wish there was some place where they could all meet together.

He did not think it right that a community centre should be provided from the outset. If people did not have to work for it they did not appreciate it properly.

A Place for Children.

A speaker asked which age group most needed a community centre. MR. WHITE said it was very difficult to say, because each group needed it so urgently. There were masses of children on new housing estates. In fine weather they played in the near-by woods and commons, and amused themselves with builders' dumps. A community centre was badly needed in winter, especially by the younger children. The need of adolescents was perhaps even greater. They mostly came from places where there had been plenty of clubs, scout and guide troops, and church activities; all these were missing on a new estate, and the young people were at a loose end, so that for want of a better way to use their time they sometimes got into trouble.

Another speaker suggested the possibility of providing a combined church and community centre and MR. WHITE replied that this was already being done at St. Paul's Cray.

A CRICKET MATCH

"Vitruvians" v. "Palladians"

A CRICKET MATCH between the "Vitruvians" (architectural Press) and Mr. B. A. P. Winton Lewis's Palladians, played at Thames Ditton on August 17, resulted in a win for the former by 42 runs. The match was played twelve-a-side and, batting first, the "Vitruvians" scored 109, to which the Palladians replied with a total of 67. Scores:

VITRUVIANS

H. Storer, c Hand, b Woodley	3
E. Chamberlain, b Freedman	3
W. W. Atkinson c Freedman, b Morrison	2
A. Boyd, c Hand, b Morrison	16
W. D. Bryant, b Freedman	4
E. Bishop, lbw, b Morrison	4
P. D. Eastop, lbw, b Last	9
I. M. Leslie, not out	33
F. H. C. Tatham, c and b Woodley	2
W. K. Faldo, b Freedman	8
E. E. Neve, st Hand, b Freedman	4
R. Binfield, c Durston, b Freedman	8
Extras	13
TOTAL	109

Bowling Analysis

	O.	M.	R.	W.
Woodley	12	2	33	2
Morrison	5	0	22	3
Gloyne	9	4	11	0
Freedman	10	2	21	5
Last	2	0	8	1
Winton Lewis	1	0	1	0

PALLADIANS

J. Gloyne, c Leslie, b Bishop	16
J. Freedman, c Neve, b Chamberlain	3
D. Woodley, c Binfield, b Bryant	18
B. A. P. Winton Lewis, b Bishop	1
A. J. Jennings, lbw, b Chamberlain	3
P. Lindsay-Clarke, c Faldo, b Boyd	9
N. Morrison, run out	4
D. Cooper Southam, b Bryant	0
J. Durston, run out	1
E. Hand, lbw, b Bryant	2
R. Last, not out	2
D. S. Abbott, b Bryant	0
Extras	8
TOTAL	67

Bowling Analysis

	O.	M.	R.	W.
Chamberlain	12	6	17	2
Bishop	11	1	27	2
Boyd	6	2	12	1
Bryant	5.3	4	3	4

BOOKS

INSIDE THE PUB. By Maurice Gorham and H. McG. Dunnett. With a foreword by J. M. Richards. (London: The Architectural Press.) Price 18s. net.

THIS BOOK may be regarded as a light-hearted supplement to the serious practical works on public house design by such authorities as the late Basil Oliver and Mr. Francis W. B. Yorke. Mr. Gorham gives us a brief but lively survey of the legal and social factors that have shaped the growth of the English public house from earliest times, while Mr. Dunnett traces the physical changes and developments which have occurred, in an endeavour to find the essential tradition of interior treatment. Both authors have searched the records thoroughly and they support their theses with a great variety of pictorial evidence, including reproductions of old prints, drawings, caricatures, etc., as well as numerous photographs.

Mr. Dunnett's contribution, for all its learning and lively writing, is naughtily provocative, for he is a Victorian Gin Palace enthusiast, very much under the spell of its decorative extravagance—its anaglypta ceilings, tortured mahogany joinery, embossed, cut, gilded and frosted mirror and other glass, cast-iron tables, "snob screens," polished brasswork, small bars, alcoves, "snugs" and "cosies" and other details that are commonly regarded as representing the nadir of Victorian taste. Of all these things he writes with such knowledge and enthusiasm that he almost persuades "Justice to break her sword." To argue over questions of taste is an unrewarding business, so we pass on to the remaining chapters.

Mr. Dunnett aims some shrewd blows at Brewers' Tudor, Brewers' Georgian, Brewers' Modern and other varieties of architecture that were exploited between the wars; but is it rational to assume, as our authors do, that all these pubs have "failed"? Many, indeed, can claim to be completely successful, not only in plan but in achieving an "atmosphere" which, if not in the Gin Palace tradition, is, at least, conducive to the quiet enjoyment of a glass of beer, which, after all, is what most customers go for. But Mr. Dunnett is not content to criticise: he shows us, by means of some excellent coloured drawings by Mr. Gordon Cullen, how he thinks modern pub interiors should be designed. The first drawing (p. 125) of a small public bar, is reminiscent of an old-fashioned City chop house and may be allowed to pass. The second (p. 126), of a large saloon bar, with enormous brewers' trade marks in blood red and a giant bottle of beer as the decorative motifs, is hardly restful, while the balcony and its narrow spiral stairway would be bound to produce a regular flow of casualties for the local hospital. The third design (p. 127), for a small saloon bar, is chiefly notable for opposed mirrors which repeat the form of the unhappy customer in perspective *ad infinitum*; while the fourth (pp. 128-9), for a large public bar, is unremarkable except for an enormous red T advertising sign. The fifth and last drawing (p. 130) is for a small and intimate lounge bar or "cosy" having the walls literally lined with "empties." What happens when the brewers want the bottles back? A stimulating book, this, compact of research and good writing but not, we should think, likely to affect pub design to any great extent.

G. J. H.

THE LANDS TRIBUNAL. By Dunbar Van Oss and Nial MacDermot, Barristers-at-Law. Pp. xl, 412. (London: Butterworth and Co., Ltd.) Price 35s.

THE object of the Lands Tribunal Act, passed last year, is to provide new and improved machinery for dealing with disputes as to the valuation of land under various Acts of Parliament. For this purpose the Act provides for the setting up of two tribunals—one for England and Wales and the other for Scotland. The tribunal for England and Wales (which is called "The Lands Tribunal") came into being earlier this year. To it have been transferred the jurisdiction of the official arbitrator in regard to the compulsory purchase of land, claims for loss of development value under the Town and Country Planning Act, applications under section 84 of the Law of Property Act for the removal of restrictive covenants, etc. Among other matters transferred to the tribunal are the jurisdiction of the county court under the new Local Government Act, and the functions of the estate duty referees. The Act also provides that other similar functions may be transferred to the tribunal by Order in Council, and—as appears below—this power has already been exercised. Finally, the tribunal may act as arbitrator in other cases of a similar nature if requested to do so.

The Lands Tribunal will undoubtedly provide more effective machinery in many of these matters. The official arbitrators have, it is generally agreed, performed their tasks admirably, but, however competent they might be as surveyors, they could not be expected to deal with the complicated issues of law which will inevitably arise under the new legislation. Similarly, the county court is hardly equipped to deal with the technical aspects of rating. The Lands Tribunal is a mixed body of lawyers and surveyors, and cases can be heard by either a lawyer member, a surveyor member, or both types sitting together. This flexibility should ensure a proper hearing for every type of dispute.

The tribunal is clearly intended to be a body of high standing—the fact that appeals from its decisions are to go direct to the Court of Appeal is an indication of this. Some of its decisions have already been published and these are certainly of a high standard. The one unsatisfactory feature is the power which the tribunal has under the Act of disallowing the costs of counsel in certain cases. No doubt there may be circumstances in which this is desirable, particularly where a small man is opposed by a large corporation which can more easily afford counsel's fees. But in the case of the Lands Tribunal this protection is likely to prove illusory, since Government Departments generally have barristers on their staff whom they can send to a hearing and so get the advantages of legal representation without being technically represented by counsel.

It is obvious that this important new piece of judicial or quasi-judicial machinery provides scope for a text-book, and Messrs. Van Oss and MacDermot are to be complimented on their work. Apart from general chapters, they have devoted a chapter to each of the more important functions of the tribunal, such as rating appeals, the determination of development value disputes, discharge of restrictive covenants, etc. There are also practical examples by Mr. Ronald Collier, whose other writings will be familiar to many readers of *The Builder*. Finally, there is an appendix giving the text of relevant Acts and Regulations, and a sample proof of evidence.

Not least among the merits of this useful book is its size. Without being too small, it is small enough to go conveniently into a brief case, and that, as many professional men will realise, is a great advantage in these days when so many of us have to take work home. There will doubtless be occasions on which it will be necessary to consult one of the larger specialist works on some particular subject, but the authors have done a very satisfactory job within the limits they have set themselves. One sympathises with them that whilst the book was in the Press an Order in Council was made transferring the jurisdiction of the War Damage Valuation Appeals Tribunal to the Lands Tribunal; it must, however, be fairly common experience for legal writers to-day to find their work out of date in some respect almost as soon as it is published. This is likely to prove a useful and popular book. A. E. T.

SLACK ON WAR DAMAGE. SUPPLEMENT TO SECOND EDITION. By G. Granville Slack and G. Krikorian, Barristers-at-Law. Pp. xx, 243. (London: Butterworth and Co., Ltd.) Price—main work and supplement 27s. 6d.; supplement only 15s.)

ALTHOUGH more than five years have elapsed since the end of the war, there are still many war damage problems outstanding. Many of the more difficult claims have still to be settled, and where there are very exceptional circumstances the War Damage Commission will even admit new claims. Moreover, there are many new problems of a type not contemplated in the original War Damage Acts of 1941 and 1943. These are the problems which arise from the impact of the new planning legislation upon war damaged properties and include such matters as compulsory purchase, claims for loss of development value, and the terms on which bombed out traders are to be offered new sites.

The amount of legislation surrounding these matters is considerable, and a supplement to Mr. Slack's original work was, therefore, urgently necessary. This supplement contains the text of three Acts of Parliament and 43 statutory rules and orders issued since the second edition of the main work appeared in 1944. Some of this legislation is extremely complicated; one cannot help feeling that in the War Damage (Public Utility Undertakings, etc.) Act and its accompanying regulations, the official draftsmen have sunk to even new depths of obscurity. The help which a book like the present volume can give is thus considerable.

The supplement does not contain the text of the relevant sections of the Town and Country Planning Acts, but there is a very good article on "Town Planning and War Damage" in which the effect of the new planning legislation is considered under the following four heads: (i) notification of war damage; (ii) land compulsorily acquired; (iii) areas of extensive war damage and permitted development; and (iv) provisions to minimise loss of development value. The two statutory instruments in connection with item (iv)—usually referred to as "the section 59 scheme"—are included. Another useful feature is the list of Treasury Directions which have played a large part in this branch of the law. These are not easily accessible or widely known, and the list which is given on page 221 should be of considerable interest and value.

A good deal can be said in praise of this book, but one's immediate impression is one of admiration for valiant efforts which authors and publishers must have made to keep pace with the stream of new orders. For instance, although the order transferring the

jurisdiction in war damage appeals must have been made after this book went to Press, the full text has been included with annotations, and reference made to it in twelve other places. Similarly, even so recent a case as *East End Dwellings* v. *Finsbury Borough Council* has been noted.

It is not too much to say that this book is indispensable to those who are concerned with this branch of the law. Its value is enhanced by the fact that, at the present painfully slow rate of rebuilding, the problems of war damage seem likely to remain with us for some time to come. A. E. T.

NATIONAL ARBITRATION DECISION

Terms and Conditions of Employment on a Cumberland Site

THE National Arbitration Tribunal has now made its award in a question as to the terms and conditions of employment which should be observed by a firm of building and civil engineering contractors in connection with certain work carried out at a site at Sellafield, Cumberland.*

The constitution of the Tribunal in this case was:—*Appointed Members*: Sir W. David Ross (presiding); Sir Francis Floud and Professor A. N. Shimmin. *Panel Members*: Mr. C. J. Geddes, C.B.E., and Mr. H. E. Parkes, C.B.E. The employers concerned were Messrs. Charles R. Price, the trade union reporting the question was the Constructional Engineering Union, and the question raised was: "Whether the employers concerned are observing the recognised terms and conditions of employment in respect of work carried out under a particular contract."

The Minister of Labour and National Service, on May 15, 1950, referred to the National Arbitration Tribunal for settlement, in accordance with the provisions of the Conditions of Employment and National Arbitration Order, 1940, the following question which had been reported to him by the Constructional Engineering Union under Article 5(3) of the Order:—

Whether Messrs. Charles R. Price, 19-20, Hallgate, Doncaster, are or were observing the recognised terms and conditions of employment in respect of the erection of steel work at the Sellafield site, or terms and conditions which are or were not less favourable than the recognised terms and conditions, it being contended by the Constructional Engineering Union that the recognised terms and conditions are those contained in the Agreement between the Engineering and Allied Employers' National Federation and the Constructional Engineering Union, dated January 1, 1947. [This is paragraph 1.]

Representatives of the parties were heard at a sitting of the Tribunal held in London on August 1, 1950. The employers concerned in the present reference, a firm of building and civil engineering contractors, are subcontractors in connection with the construction of two chimneys, each 400 ft. high, at the Sellafield site concerned, the work on which they are engaged being the erection of scaffolding for the main contractors. The employers apply to their workers employed on this work the terms and conditions laid down in the Working Rule Agreement of the National Joint Council for the Building Industry. The agreement dated January 1, 1947, made between the Engineering and Allied Employers' National Federation and the Union herein concerned, referred to in the question set out in paragraph 1 above, and which the Union contend should be applied by the employers in connection with the above sub-contract, lays down the wages and working conditions of the various classes of workers, including erectors, employed on outside steelwork erection.

In support of the above contention it was stated by the representative of the union that part of the work carried out has been the erection of a steel structure, used as a lift hoist for transporting material up the chimney as it is erected, the angle irons of which it consists being bolted together to form what is termed in the structural engineering industry a "brace structure." Letters dated August 4 and 6, 1949, addressed respectively by the regional secretary and the general secretary of the National Federation of Building Trades Operatives to the union were produced in which the opinion was expressed that the Working Rule Agreement of the building industry would not apply to such an operation. It was submitted by the union that all steel structures are normally the work of steel erectors, and that accordingly the rates and conditions contained in the above-mentioned agreement of January 1, 1947, should apply.

On behalf of the employers it was stated that under the terms of their sub-contract they undertook to comply with the wages and conditions laid down by the National Joint Council for the Building Industry. It was submitted that both the nature of the work involved in the erection of the scaffolding and the type of scaffolding employed are such as are normally associated with the work of building trade operatives, and that the work did not necessitate the employment of a class of labour different from that normally engaged by the employers on constructions of this type. It was stated that in their applications to employment exchanges for suitable labour for the work the employers asked for and were supplied with "scaffolders"; and that special provision is made for this category of worker in the Working Rule Agreement of the building industry. Reference was made to the "Building (Safety, Health and Welfare) Regulations" in which scaffolding is interpreted as meaning "Any temporary structure on or from which persons perform work in connection with an operation to which these Regulations apply, and any temporary structure which enables persons to obtain access to or which enables materials to be taken to any place at which such work is performed, and includes any working platform, gangway, run, ladder or step-ladder (other than an independent ladder or step-ladder which does not form part of such a structure), together with any guard-rail, toe-board or other safeguards and all fixings, but does not include a lifting appliance or a structure used merely to support such an appliance or to support other machinery or plant." It was stated that the scaffolding erected on the contract in question is used to enable men to work safely on platforms on which building materials are laid for building work and is not incorporated in the building in any way. It was submitted that the work is wrongly described in the terms of reference to the Tribunal as "steel work," as the work which has hitherto been regarded as that of steel erectors has been the erection of the steel framework forming part of a building or a bridge, or similar permanent structures.

It was stated that the present dispute has been considered under the conciliation machinery for the building industry and that the National Conciliation Panel on November 24, 1949, after hearing evidence, unanimously found as follows:—

"(1) The evidence shows that the operations as a whole are essentially those of erecting, maintaining and dismantling scaffolding for use during the erection of a building structure.

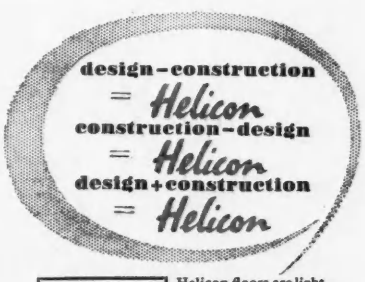
"(2) The work is therefore within the ambit of the National Joint Agreement for the building industry and the employers are correct in operating the normal building industry working rules."

It was stated that the above finding has been accepted by the workers concerned and that the building trade wage rates and conditions continue to be applied without dissent; that the work is now nearly completed, and that the scaffolding is being dismantled for re-use on other building work. It was accordingly submitted that the workers employed on the work in question are being correctly paid at the rates laid down for such operations in the Working Rule Agreement for the building industry.

The Tribunal have given careful consideration to the above-mentioned statements and submissions made on behalf of the parties. The contention of the union rests upon the claim that the recognised terms and conditions which ought to be applied in respect of the work concerned are those contained in the agreement between the Engineering and Allied Employers' National Federation and the Constructional Engineering Union, dated January 1, 1947. The Tribunal find that, on the evidence adduced, the union have failed to establish this claim and they are therefore unable to say that in respect of the work concerned Messrs. Charles R. Price are not observing recognised terms and conditions or terms and conditions which are not less favourable than the recognised terms and conditions.

The Tribunal award accordingly.

* National Arbitration Tribunal. Award No. 1502. Stationery Office, 2d.



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M-W 50

TECHNICALIA

BUILDING SCIENCE III. By S. C. Gibbins. (8s. 6d.)

CARPENTRY AND JOINERY. By M. T. Telling. (8s. 6d.)

GEOMETRY III. By George A. Hanby. (7s. 6d.)

MATHEMATICS III. By W. Morgan and J. R. Pickering. (6s. 6d.) (All published by Sir Isaac Pitman and Sons, Ltd.)

ALL THESE BOOKS have been issued in the Pitman's Secondary Technical Building Series. "Building Science III" is a sequel to the first two volumes on the same subject and shows the application of scientific knowledge to building processes and to the production and use of building materials. The book covers a wide range, including chapters on sound, electricity, bricks, iron and steel, lead, timber, decorators' materials, etc.

"Carpentry and Joinery" has been written for building students and apprentices, and covers the general principles of its subject, special attention being given to workshop practice, woodworking tools and materials, general construction, measurement and drawing, etc. The treatment is sufficiently comprehensive to cover the requirements of the Intermediate Examination of the City and Guilds of London Institute.

"Geometry III" continues the geometry of the triangle and the circle from the previous books, and proceeds to the more uncommon construction of triangles, further considerations of the tangential properties of arcs and compound curves. A number of examples and exercises show the practical application of these and many other constructions to building work.

"Mathematics III" follows two earlier volumes, and is intended for third year students. Algebra, geometry and trigonometry are treated separately and taken on to a further stage than in Book II. The text is elaborated by worked examples and a wide range of exercises, with answers.

WARNE'S METRIC CONVERSION TABLES. Designed by Otto Klein. Pp. 104. (Frederick Warne and Co., Ltd.) 15s.

THESE TABLES have been compiled to meet the demand for a quick and efficient system of converting Imperial or American measures into the metric system, and *vice versa*. Measures of weight, length, speed, surface, volume and capacity are included, together with tables of reduction and thermometer and pressure measures, comprising a total of 80 tables.

The tables will doubtless be particularly useful to all engaged in commercial transactions between countries using the Imperial measure and those employing the metric system.

SOLID FUEL HOUSECRAFT. By Elspet Fraser-Stephen. Pp. 118. Illustrated. (Crosby Lockwood and Son, Ltd.) (9s. 6d.)

THIS is a modern handbook for teachers which deals comprehensively with the domestic use of solid fuel. Written in collaboration with the technical committee of the Women's Advisory Council on Solid Fuel, it includes the historic and scientific background, and the structure of the coal industry to-day; also chapters on each type of modern domestic solid fuel appliance. Construction and functions of these are fully described, and each chapter ends with teaching notes, suggestions for class projects and lists for further reading. The book is fully illustrated with 32 plates and 17 diagrams, showing typical modern appliances.

CALCULATION, DESIGN AND TESTING OF REINFORCED CONCRETE. By K. L. Rao. Pp. 388. (Sir Isaac Pitman and Sons, Ltd.) 40s.

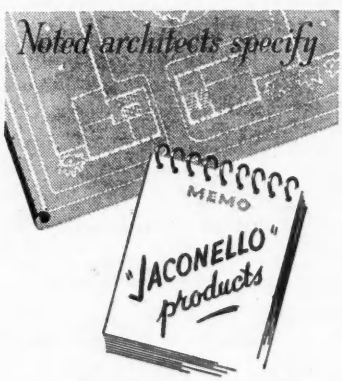
THIS is a practical and up-to-date book for students on the fundamentals of theory, testing and design of reinforced concrete. It covers the syllabus of the B.Sc., Institution of Civil Engineers and Institution of Structural Engineers and diploma examinations. It is divided into three sections. The first section deals with principles, section two with experiments, and section three with simple designs of structures. A helpful feature is the inclusion of examples taken from the recent examination papers of the Universities of London and Birmingham and the Institutions of both Civil and Structural Engineers.

WORKSHOP RECORD BOOK. Prepared by L. J. T. Wheatley, A.M.I.Mech.E. (Sir Isaac Pitman and Sons, Ltd.) 5s.

GOOD USE for these record books should be found in most secondary schools where instruction is given in woodwork and metalwork, and also in workshop classes in senior evening institutes. The layout of the sheets is similar to the "Process" sheets used by many large firms and, therefore, students accustomed to recording their notes in Mr. Wheatley's books should feel they are on familiar ground when they have to keep records of their work in their apprenticeship days. They will also help the student to compile his notes in an orderly fashion and to express himself clearly and precisely.

BOOK RECEIVED

YOUR LOCAL BUILDINGS. ("Understanding the World" series.) By Kathleen Harston and Elizabeth Davis. (London: George Allen and Unwin, Ltd.) Price 4s. 6d. net.



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HOUSING IN SINGAPORE

A New Building Technique

THE introduction of a new building technique which, it is believed, will provide a considerable saving in cost, is referred to in the report of the activities during 1949 of the Singapore Improvement Trust. It is described as "a simple flat design constructed of precast lightweight hollow concrete blocks with integral reinforced concrete frame."

The report states that only one contract of this type was let last year, but that it has already proved that this method will provide a considerable saving in cost, and it is expected that as soon as the technique is fully understood it will also prove speedier than other methods in use.

It is not expected that there will be any large-scale changes in housing design during 1950, except in the case of one contract in the central area of Singapore where three blocks of nine-storey flats and shops are proposed. The previous highest building carried out by the Trust is five storeys high.

Building costs in 1949, according to the report, remained on the same level as 1948 with a slight decrease in the first half of the year and a slight rise in the second half probably largely due to the devaluation of sterling and a temporary shortage of cement. The average cost of a three-apartment flat in the standard reinforced concrete frame and panel wall construction has been between $5,500 and $6,500 per flat, depending on floor area, and of the lightweight hollow block construction, approx. $5,100. These figures include electric lighting, sanitary and water installation, as well as immediately adjacent paths, turfing and normal foundations, but exclude piling. The cost of the standard artisans' quarter continued to decrease and is now approximately $2,100 per house.

CODE OF PRACTICE

Installation of Sanitary Appliances

THE Council for Codes of Practice for Buildings has now issued for comment Code 305, "Sanitary Appliances and Their Installation," prepared by a committee convened by the Institution of Municipal Engineers. The code deals with the selection and installation of sanitary appliances, i.e., those appliances fitted to a drainage system for the collection and discharge of foul or waste matter. The many types of appliance in common use are described—those which discharge to a soil system and those connected to a waste system being distinguished. Information is also given regarding the provision and installation of sanitary appliances in dwelling houses, flats, shops and schools, hospitals, public halls, swimming baths, factories, catering kitchens and office buildings. In each case the code contains advice on the types of appliances required, the situation of the appliance and the method of installation. Reference is made throughout to the appropriate British Standards, where relevant.

The code is in draft form and is subject, before final publication, to amendment in the light of comments received. Such comments should be submitted by October 2 next. The code carries the usual warning that, during the present abnormal conditions, it may not be possible to carry out all the recommendations made. Copies of the code may be obtained from the British Standards Institution, 24-28, Victoria-street, S.W.1, price 3s., reference CP(B) 963.

TOWN PLANNING ACT, 1947

Disposal of Section 82 and Section 83 Land

IN paragraph 29 of "Practice Notes" (First Series) the Central Land Board drew attention to Sections 82 and 83 of the Town and Country Planning Act, 1947, which provides that when land held by local authorities for general statutory purposes, or for comprehensive development or redevelopment, ceases to be within the relevant Section by reason of a disposal, no development charge is payable for development for which planning permission had been given *before* the disposal. As far as Section 82 is concerned, this provision applies only to land held by the local authorities on July 1, 1948.

The Board wish to make it clear that when Section 82 and Section 83 land is disposed of for development, they will not regard that development as liable to development charge provided planning permission, at least in principle, is obtained for it by the time the conveyance or assignment is made, or the lease is executed, even though an earlier agreement (including a building agreement) to sell or lease has been entered into.

THE LABOUR PARTY AND HOUSING

New Statement of Policy

THE HOUSING AIMS of the Socialists are reiterated in a new statement of policy issued by the Labour Party on August 21.

A separate home for every family; the demolition of the slums and the renovation of older houses in accordance with modern standards are mentioned as objectives.

The Party also pledges itself to cut building costs without impairing the hard-won advances of the building workers, and to keep rents within reasonable limits. Sound incentive schemes, closer control of production, a steadier supply of raw materials, and better training for management are listed as urgent requirements.

Local authorities, the statement adds, will be encouraged to arrange more voluntary exchanges between those householders whose premises are too large for them and those whose premises are too small. Reform of the law of leasehold is expected to give security and justice to householders and shopkeepers.

No mention is made in the statement concerning the nationalisation of the building industry, or any part of it. The proposal to nationalise the cement industry, which appeared in the Labour election manifesto issued last January, is not repeated in this latest publication; it is understood that this does not mean that the proposal has been dropped.

Dust and Fumes in Ironfoundries.

The Joint Iron Council, in association with the Council of Ironfoundry Associations, has decided to intensify work upon problems of dust and fumes in ironfoundries, and to provide an advisory service on how these may best be dealt with in foundry practice. The work is being carried out through the British Cast Iron Research Association, which is largely financed by the Joint Iron Council. A special committee of the Research Association entitled the "Foundry Atmospheres Committee" is supervising the work. Close collaboration is being maintained with the joint standing committee on conditions in ironfoundries set up by the factory department of the Ministry of Labour.

NEWS IN BRIEF

An Appointment.

Mr. W. C. Ireland has been appointed Surveyor to Prudhoe U.D.C. For the past 18 months he has acted as Deputy Surveyor under Mr. H. Hillier, B.Eng., M.I.Mun.E. (This amends a paragraph given in our last issue.)

Builder Killed by Fall.

Mr. George Edgar Chaplin, 44, a foreman, of Agraria-road, Guildford, fell 72 ft. while working on the new cathedral at Guildford, on August 16, and died on the way to hospital. He was ascending on the hoist to lay bricks on the tower when he slipped and fell.

Housing Manager a Luxury.

A proposal to appoint a housing manager for Mold (North Wales) has been sent back by the Council for further consideration. It was stated by one of the members that they had enough difficulty in finding money for essential repairs to house property, and they could not afford the luxury of such an official as a housing manager.

Coal Board Request Refused.

Mr. Hugh Dalton, Minister of Town and Country Planning, has decided not to allow the National Coal Board to tip colliery waste on two sites within the Nottingham City boundary. The proposed sites are near the Bilborough Housing Estate and also near an area reserved for light industry, both of which would suffer from the proximity of tips. The Coal Board have already obtained permission from the County Council to tip on an alternative site within 1¼ miles of the colliery at Coventry-lane. This will be large enough to last the rest of the colliery's life.

In cleaning down paint, one third of the time can be saved by doing the job with Manger's Sugar Soap. This is a great consideration in these days of labour shortage.
To be certain you are getting the best and quickest acting sugar soap, always ask for Manger's.

MANGER'S SUGAR SOAP

Nominal 1-lb. cartons 7½d. 1 doz. 7/-
6 doz. @ 6/6 per dozen
Duty paid Eire 9d. 1 doz. 8/6. 6 doz. @ 8/- per dozen
J. MANGER & SON LTD., Dept. B, Kingsland, London, E.8
EXPORT ENQUIRIES INVITED

World's Timber Supplies.

Mr. P. L. Money, London Regional Officer, Timber Development Association, has written a booklet entitled "Timber," which has been issued by the Purchasing Officers' Association as the eighth booklet in their Raw Material Survey Series, the object of which is to provide factual information on the world sources of supply of the main materials of industry.

1,000 Houses Erected.

The completion of the building of 1,000 post-war houses by Ruislip-Northwood Urban District Council was marked by a special key presentation ceremony on August 17. Only three other urban district authorities in England and Wales, it is believed, have achieved a similar number of houses erected. William Spencer (Eastcote), Ltd., were the contractors for the 1,000th house.

Post Advanced Building Courses.

Details of the post advanced courses in building and civil engineering available during the 1950-51 session in the area it covers are given in a booklet which has been issued by the Manchester and District Advisory Council for Further Education. The information given is divided into two sections, one concerning the courses in specialised branches of building and civil engineering, and the other concerning post advanced and other special courses which form part of the normal provision at technical colleges in the area. The address of the hon. secretary is Education Offices, Deansgate, Manchester, 3.

CLAIMS FOR RAIL LOSSES

A correspondent writes: The notice recently issued by British Railways as to times for making complaints and lodging claims respecting lost and damaged goods has given rise to some misunderstanding. The Central Claims and Packaging Division of the Railway Executive state that the statutory time-limits now operate in the case of loss from a package or from an unpacked consignment, and respecting damage, deviation, misdelivery, delay or detention. This means that written complaints must now be made within three days and written claims lodged within seven days of termination of transit. (Previous periods were six and ten days respectively.)

For non-delivery of the whole of a consignment or of a separate package forming part of a consignment, the extended periods of 28 days for written complaints and 42 days for written submission of claim continue to operate. (Statutory time-limits are 14 and 28 days, respectively.) These time-limits apply to goods carried by goods or passenger train, at either company's or owner's risk. In the case of pilferage of goods carried by passenger train at owner's risk, the pilferage must be pointed out to a servant of the Executive on or before delivery.

OFFICIAL NOTIFICATION

Imported Softwood Prices.

The Board of Trade announce the publication, on August 21, of the Imported Softwood Prices (Amendment) Order, 1950, which came into operation on the same date. The order makes no price changes; it provides alternative descriptions for certain types of North American softwood, adds prices for certain descriptions of softwood not already covered, and makes certain alterations in the classification of Finnish Redwood.

TRADE NEWS

Flooring in an Essex School.

An advertisement in *The Builder* for May 26 last, showing flooring in the corridor display space of the Cranham Oglethorpe Primary School for the Essex County Council, inadvertently credited the work to another specialist firm engaged on the same contract. In point of fact the photograph showed "Durablock" flooring, which was supplied and laid by the Terradura Flooring Co., Ltd., of Providence Works, Norton-street, Miles Platting, Manchester, to the instructions of the Essex County Architect, Mr. H. Conolly, F.R.I.B.A.

Tubular Steel Crush Barriers.

A recent air display at Farnborough, at which 20,000 spectators were present on a single day, presented a problem of crowd management. As Farnborough is an operational aerodrome, two miles of temporary fencing had to be erected at the rate of a mile a day and had to be equally quickly removed when the show was over. It had to be laid over grass, concrete and steel runways, with the minimum interference to the surface and without risk of damage to cables, drains and other subterranean installations.

The solution was found by the use of tubular steel crush barriers designed by Tubular Construction Systems, Ltd., and manufactured for them by Tubewrights, Ltd., a subsidiary of Stewarts and Lloyds. These barriers, which are claimed to be absolutely rigid and stable, may be easily packed together, and 140 sections, or 700 running feet, form an average lorry load. They are designed to be suitable for all ceremonial and sporting occasions.

Erected tubular steel crush barriers.

Immersion Heating Units.

Aidas Electric, Ltd., Sadia Works, Rowdell-road, Northolt, Middlesex, have recently issued a pamphlet dealing with their immersion heating units for home and industry. The pamphlet gives details of all units both for side and top entry, and a price list is also available.

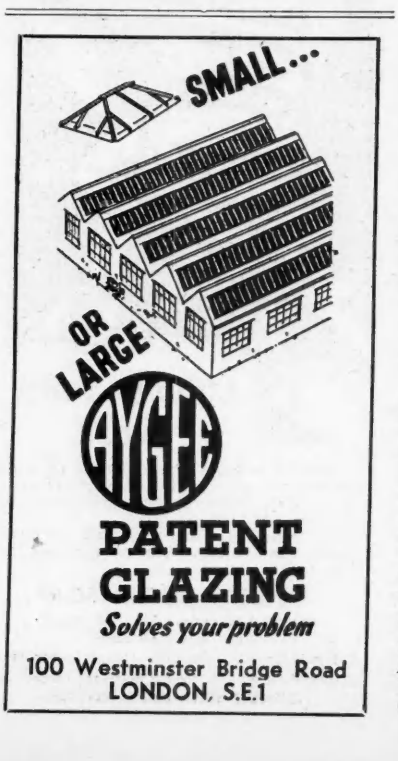
British Water Heaters for U.S.A.

Ascot Gas Water Heaters, Ltd., announce that they have obtained the American Gas Association's certificate of approval for their multi-point gas water heater, type 701. The firm states that without A.G.A. approval of the product they could not sell it in the U.S.A. or, without extreme difficulty, in Canada. The potential market for these heaters is indicated by the fact that in 1948 two million American-made gas storage heaters were sold in the States as against only 8,000 instantaneous heaters.

The Ascot 701 will supply all the hot taps in a house—bathroom, bedroom basins and kitchen sink. The firm now proposes to carry out an intensive sales compaign in the U.S.

A Display of Telephone Systems.

The exhibits of the Reliance Telephone Co., Ltd., at the Business Efficiency Exhibition, Manchester, will consist of a selection of telephone systems incorporating developments that have taken place during recent years. The principal exhibits which will be shown under working conditions are "Reliance" private automatic exchanges with capacities from 10 to 1,000 lines and with provisions for full and direct intercommunication 24 hours a day without the service of an operator. There will also be automatic telephones of various types, finished in different styles, which will operate in conjunction with the above exchanges. Other exhibits will be "Reliance" intercommunication systems, various types of luminous and audible staff location systems, and sound reproduction systems. The exhibition is to be held in the City Hall, Deansgate, Manchester, from September 6-16.



Firm's Change of Name.

We have been informed that Habin, Ltd., High-street, Totton, Hants, have changed their name to Dimplex, Ltd. The firm has recently appointed Mr. T. E. Green, of 40, Longley-lane, Northenden, Manchester, as their northern representative.

Ocean Terminal, Southampton.

In connection with the illustrated article on the Ocean Terminal, Southampton Docks, which appeared in our issue of August 11, we are informed by Sealocrete Products, Ltd., that their double-strength Premix solution was specified by the Docks Engineer and incorporated in the granolithic pavings laid by Messrs. A. C. V. Telling (Southampton), Ltd. Also, that those parts of the flooring where this solution was not incorporated have been treated by the contractors, Staverton (Builders), Ltd., with Sealocrete concrete surface dressing.

NEW COMPANIES REGISTERED

THE FOLLOWING NEW COMPANIES registered in England have been announced by Jordan and Sons, Ltd., company registration agents:—

Anderson and Burton, Ltd. (485,080). Regd. August 4, 467, Third-av., Trafford Park, Manchester, 17, bldrs., etc. Nom. cap.: £1,500. Dirs.: G. T. Anderson and L. M. Burton, Tanfield Lodge, Crofts Bank-rd., Urmston, Lancs. Johnson, Smith and Co., Ltd. (485,096). Regd. August 4, 349, Coldharbour-la., S.W.9, elec. contractors, etc. Nom. cap.: £2,000. Subs.: Jean Herbert and Claire Moore, 128, Albany-st., N.W.1. Jury's (Runcton), Ltd. (485,099). Regd. August 4, Nor Pete, Runcton, nr. Chichester, bldrs., decorators and bldrs.' mchts. Nom. cap.: £1,000. Dir.: E. T. Blyther, 90, Hawthorn-rd., Bognor Regis. Pendleton Construction Co., Ltd. (485,111). Regd. August 4, 273a, Bolton-rd., Salford, 6. Nom. cap.: £250. Dirs.: J. Riley and Mrs. L. Riley, 22, Queen Victoria-st., Patricroft, Lancs.

R. Gibson and Co. (Edgware), Ltd. (485,117). Regd. August 4, 141, Turner-rd., Edgware, Mdx., bldrs., bldg. contractors, etc. Nom. cap.: £100. Dir.: R. T. Gibson, 141, Turner-rd., Edgware, Mdx. T. Vincent and Son, Ltd. (485,216). Regd. August 9, Bridge House, Brough, E. Yorks, bldrs., contractors, jobbing bricklayers, plasterers, etc. Nom. cap.: £2,000. Dir.: T. W. Vincent, Bridge House, Brough, E. Yorks. John Evans and Sons (Contractors), Ltd. (485,200). Regd. August 9, Gwastadgoed, Cemmaes-rd., Machynlleth, bldg. and civil engineering contractors. Nom. cap.: £5,000. Dir.: J. Evans, Gwastadgoed, Cemmaes-rd., Machynlleth. T. Bromiley and Co., Ltd. (495,214). Regd. August 9, 268, Willows-la., Bolton, bldrs., etc. Nom. cap.: £1,000. Dir.: F. Thomasson, 2, Duchy-ave., Bolton.

Eastern Veneers, Ltd. (485,234). Regd. August 10, Bank-chmbrs, 180, Bethnal Green-rd., E.2. Nom. cap.: £100. Dir.: Mrs. D. G. M. Levy, 59, Elm Park-ave., N.15. George Wilkins, Ltd. (485,239). Regd. August 10, 6, Pembroke-rd., Kensington, W.8, timber mchts. and importers, sawmill propts., etc. Nom. cap.: £2,000. Dir.: G. A. Wilkins, 6, Pembroke-rd., Kensington, W.8. L. A. Tubbs, Ltd. (485,285). Regd. August 11, 26, Canterbury-rd., Guildford, bldrs., etc. Nom. cap.: £1,000. Dir.: W. E. R. Tubbs, 26, Grove-rd., Merrow, Guildford. Frank Cooke (Builders), Ltd. (485,277). Regd. August 11, Main-rd., Broughton Astley, Leics. Nom. cap.: £10,000. Dir.: G. C. Cooke, Corner Hse., Old Mill-rd., Broughton Astley.

THE SCOTTISH BUILDER

NEW BUILDINGS

Aberdeen.—New laboratory block of buildings at the High School for Girls, for which plans are to be prepared by J. A. O. Allan, and Ross, and Allan, FF.R.I.B.A., 10, Bon Accord-sq., off Union-st., Aberdeen.

Aberdeenshire.—The Corporation of Peterhead is to erect 90 houses on a site at Blackhouse. Plans by Corporation's own architect.

Glasgow.—Additional classrooms at Abbotsford-pl., for Abbotsford Public School, and for which the architect is Mr. John MacNab, F.R.I.B.A., 129, Bath-st., Glasgow, W.C.2.

Glasgow.—New buildings at the Old Barracks, for Messrs. Jacob & Co. (Liverpool), Ltd., for which the architects are John Keppie & Henderson, and J. H. Cleaves, FF.R.I.B.A., 196, West Regent-st., Blythswood-sq., Glasgow, W.C.2.

Glasgow.—Alterations and additions to Belvedere Hospital, for the South-West of Scotland Hospital Board, for which the architects are Frank Boston, Burnet & Bell, F. and A.R.I.B.A., 180, Hope-st., Glasgow, W.C.2.

Glasgow.—Western Regional Hospital Board, 64, West Regent-st., Glasgow, W.C.2, are to make additions and other works to the Glasgow Homœopathic Hospital.

Greenock.—New Council Houses at Ardgowan and Campbell-st. Architect is Mr. R. L. Rankine, Burgh Engineer's Office. Municipal Bldg., Wallace-sq., Greenock.

Inverness-shire.—The Corporation of Fort William is to erect 28 houses on a site at Claggan, Ben Nevis, for which the architect is Mr. A. N. Tamahill, Burgh Engineer, Municipal Offices, Fort William.

FUTURE CONSTRUCTION

PUBLIC APPOINTMENTS

Full details of Public Appointments open will be found in the Advertisement pages of this and previous issues.

CONTRACTS OPEN

For some contracts still open but not included in this list see previous issues. Those with an asterisk are advertised in this number. The dates at the heads of paragraphs are those for the submission of tenders; a dagger (†) denotes closing date for applications; the name and address at the end refer to the person from whom particulars may be obtained.

BUILDING

AUGUST 28.

***†Enfield U.D.C.**—Erection of 12 flats at High-st., Ponders End. Frank Lee, A.M.I.C.E., F.R.I.C.S., E. & S., 7, Little Park-gdns., Enfield. Dep. £2 2s. Tenders by October 5.

AUGUST 29.

***†Harrogate Corpn. and Leeds Reg. Hospital Board.**—Adaptations at Royal Baths, Harrogate. Architect to Board, 29, Eastgate, Leeds, 2. Dep. £2 2s. Tenders by September 15.

AUGUST 30.

***†Birmingham T.C.**—Police sub-station at Packington-ave., Sheldon. City E. & S., Civic Centre. Dep. £2 2s.

***†Leeds Regional Hospital Board.**—Extensions to operating theatre at Royal Bath Hospital, Cornwall-rd., Harrogate. Architect to Board, 29-31, Eastgate, Leeds, 2. Dep. £2 2s.

***†Leeds Regional Hospital Board.**—Alterations to old Scarlet Fever Block and Annexe at Wharfedale Hospital, Burley-rd., Menston. Architect to Board, 29-31, Eastgate, Leeds, 2. Dep. £2 2s. Tenders by September 14.

***†Leeds Regional Hospital Board.**—Alterations to X-ray and theatre hut and covered way at General Hospital, Otley. Architect to Board, 29-31, Eastgate, Leeds, 2. Dep. £2 2s. Tenders by September 14.

†Lincoln (Part of Kesteven) C.C.—Pair of police houses at Exeter-gdns., Stamford. County A., County Offices, Sleaford.

***†Lincoln (Parts of Lindsey) C.C.**—Superintendent's House and 2 inspectors' houses at Town Hall-sq., Scunthorpe. Charles B. Pearson & Son (F.), 18, Dalton-sq., Lancaster.

***†Staffordshire C.C.**—New premises for School of Art, Lichfield. A. C. H. Stillman, County A., Green Hall, Lichfield-rd., Stafford. Dep. £2 2s.

***†Whitchurch (Salop) U.D.C.**—Erection of 12 houses on Smallbrook-rd. site. Frank Clayton, C., Council Offices, Whitchurch, Shropshire. Dep. £2 2s.

AUGUST 31.

†Eastbourne B.C.—Houses on various sites (four contracts). Boro' E., 2-4, Saffrons-rd., Eastbourne. Dep. £2 2s. each contract.

SEPTEMBER 2.

Castle Ward R.D.C.—26 houses in blocks of four and six at Stamfordham. G. E. Dimmack, E. & S., 7, North-rd., Ponteland. Dep. £2 2s.

***†Southampton C.B.**—Contract No. 38. 14 houses, Harefield estate. B.A., Civic Centre, Southampton. Dep. £2. Tenders by October 2.

SEPTEMBER 4.

***†East Suffolk C.C.**—Erection of police section station at Hopton, near Lowestoft. County A. Dep. £2 2s.

Haydock U.D.C.—26 houses and four bungalows, Church-rd. site. R. Main, S., Council Offices, Haydock. Dep. £3 3s.

***†Southall B.C.**—Erection of houses, bungalows and flats within borough. E. & S., Town Hall, Southall.

SEPTEMBER 5.

Atherstone R.D.C.—Erection of (section 1) four houses, (2) eight houses, (3) 12 houses, at Baxterley. H. N. Jepson, Midland Bank-chbrs., Nuneaton. Dep. £2 2s.

†*Folkestone T.C.—One block of four and one pair of single-bedroom houses at Rosendale-rd. site, contract No. 3. B.E., Municipal Offices, West-terr. Dep. £3 3s. Tenders by September 25.

SEPTEMBER 6.

***†Malden and Coombe B.C.**—One block of four flats and two blocks of two flats at Albemarle-gdns. and Cleveland-rd. T.C., Municipal Offices.

Wortley R.D.C.—42 houses at St. Margaret's-rd. and St. Michael's-cres., Ecclesfield. E. & S., Council Offices, Grenoside, nr. Sheffield. Dep. £5 5s.

SEPTEMBER 7.

†*Manchester Regional Hospital Board.—Conversion of pavilion into out-patients' dept. at Withington Hospital, West Didsbury. Thomas Duffy (F.), Manchester Regional Hospital Board, 3rd Floor, Sunlight House, Quay-st., Manchester, 3. Dep. £2 2s. Tenders by September 26.

SEPTEMBER 8.

***Bristol T.C.**—Prim. school, Glenfrome-rd., Eastville. J. Nelson Meredith, F.R.I.B.A., City A., Eagle House, Colston-ave., Bristol, 1. Dep. £2 2s.

Chesterfield T.C.—18 flats. E. & S., Town Hall, Chesterfield. Dep. £2 2s.

***†Esher U.D.C.**—Erection of 78 dwellings on Cranbrook-dr. estate. E. & S., Council Offices, Esher. Dep. £2 2s.

Guisborough U.D.C.—100 houses at Guisborough in two contracts of 50 each. Messrs. Garbutt, Archibald & Archibald, architects, 23-25, Albert-rd., Middlesbrough. Dep. £2 2s. for either or both contracts.

***Harrow U.D.C.**—Extensions to mortuary at Byron-rd., Wealdstone. H. W. Rackham, F.R.I.C.S., E. & S., Council Offices, Stanmore. Dep. £2 2s.

Norton R.D.C.—Six houses at Scampston. Alderson & Allen, architects, 32, St. Nicholas-st., Scarborough. Dep. £2 2s.

SEPTEMBER 9.

***Accrington B.C.**—24 houses, Peel Park-ave. and Station-rd. (Huncoat) sites. J. Wallace Buick, A.M.I.C.E., E. & S., Town Hall, Accrington. Dep. £2 2s.

***Stepney B.C.**—War damage repairs, etc., to various properties. Chief Technical Officer for War Damage, Nos. 191-193, Commercial-rd., E.1. Dep. £2 2s.

Worcestershire C.C.—Reconstruction of bridge over Stour at New-rd., Halesowen. County S., County-bldgs., Worcester. Dep. £5 5s.

SEPTEMBER 11.

***Bradford T.C.**—10 pairs of houses at Harrogate-rd., Eccleshill. City E. & S., Town Hall. Dep. £2 2s.

Leeds T.C.—Detached house and 10 s.d. houses, Stonegate-rd. City A., Priestly House, Quarry Hill, Leeds. Dep. £2 2s.

†Nat. Health Service (Executive Council for Surrey C.C.).—New council building and offices, Ewell-rd., Surbiton, Surrey. Clerk of Council, Building No. 50, Richmond Park Camp, Kingston Gate, Kingston-upon-Thames. Dep. £2 2s.

Newmarket U.D.C.—Three blocks of four houses on the Valley housing scheme. H. G. Kenyon, architect, Council Offices, Severals House, Newmarket. Dep. £2 2s.

Nuneaton T.C.—21 houses on the Marston estate. G. Ashton, B.S., Council House, Nuneaton. Dep. £2 2s.

Shaftesbury B.C.—22 bungalows, Grosvenor-road estate. H. Orman, C., Shaftesbury. Dep. £2 2s.

SEPTEMBER 13.

***Dover B.C.**—32 houses, Buckland Valley estate, Dover. Boro' E., Brook House, Dover. Dep. £2 2s.

***Wakefield T.C.**—Two blocks of shops and flats at Flanshaw estate. City E., Town Hall. Dep. £2 2s.

SEPTEMBER 14.

Romford B.C.—Construction of r.c. bridge and approx. 600 lin. yds. of 7-in. r.c. carriageway on pitching, together with paving, provision of street lighting and incidental work. B.E. & S., Town Hall, Romford. Dep. £2 2s.

SEPTEMBER 15.

***Ealing T.C.**—29 garages and 252 outbuildings at Northolt Grange estate; 24 garages at S.E. Northolt estate; 12 garages at Bridge Farm estate. B.E., Town Hall. Dep. £3 3s.

†*Newcastle-upon-Tyne Regional Hospital Board.—Structural alterations and adaptations at Hexham General Hospital. E. B. Jenkins, Secretary, "Dunira," Osborne-rd., Newcastle-on-Tyne, 2.

***Reading C.B.**—Conversion of "Warren House," St. Peter's-ave., Caversham, into hostel for aged. Boro' A., Town Hall, Reading. Dep. £2 2s.

***Scarborough B.C.**—(a) eight flats and four maisonettes, and (b) four houses, four shops and two offices, all at Eastfield. Boro' E. Dep. £2 2s. each set of quantities.

***†West Sussex C.C.**—(a) Extension to existing building at Henfield fire stn., and (b) nurses' house at Yapton. County A., County Hall, Chichester.

SEPTEMBER 18.

***Beckenham T.C.**—Extensions to café at Public Baths, Beckenham-rd. B.E. & S., Town Hall. Dep. £2.

***East Elloe R.D.C.**—Six houses with site works at Sutton St. James, Chapelgate; 12 at Sutton St. Edmund, Throckenholt; 12 houses at Wingland, Todkill's-la. K. Atkinson (L.), Mattimore House, Holbeach. Dep. £2 2s.

***Hastings C.B.**—Small sports pavilion at Bulverhythe B.E., 37, Wellington-sq. Dep. £2 2s.

***Huntingdon C.C.**—(a) two pairs of houses, Brampton, and (b) one pair, Ramsey. S. J. Hands, County A., County-bldgs., Huntingdon.

Newhaven U.D.C.—22 dwellings on Meeching estate. E. & S., Council Offices, Newhaven. Dep. £2 2s.

***Newtown and Llanidloes R.D.C.**—Extensions to pumphouse, etc., at Caersws. W. Herbert Bateman & Partners, engineers, Chesterfield House, Bath-easton, Bath. Dep. £3 3s.

***Tonbridge U.D.C.**—30 houses in two contracts of eight and 22 respectively, Brook-st. estate. E. & S. Dep. £3 3s.

SEPTEMBER 20.

***Cardiff T.C.**—Two blocks of two shops and flats at Rumney. City S., City Hall. Dep. £2 2s.

Hemsworth R.D.C.—Houses and bungalows on three sites (46 dwellings). S. Price, E. & S., Brierley Hall, Brierley, nr. Barnsley. Dep. £2 2s.

Stafford B.C.—64 flats in three blocks, together with road and sewer works, in Corporation-st., Stafford. B.E. & S., Mount-st., Stafford. Dep. £2 2s

SEPTEMBER 23.

***Aycliffe Development Corporation.**—Group 1, 91 houses and three single-storey old people's homes; group 2, 16 houses in foamed slag A.R.P. block construction; group 3, three-storey block of 12 flats; group 4, 26 lock-up garages; all at Housing Precinct A.1 at Newton Aycliffe. A. W. Thomas, general manager, Newton Aycliffe, nr. Darlington. Dep. £2 2s.

SEPTEMBER 27.

Salop C.C.—Erection of Copthorne Primary School, Shrewsbury, and Middeley Primary School. Secretary for Education, County-bldgs., Shrewsbury. Dep. £2 2s. each.

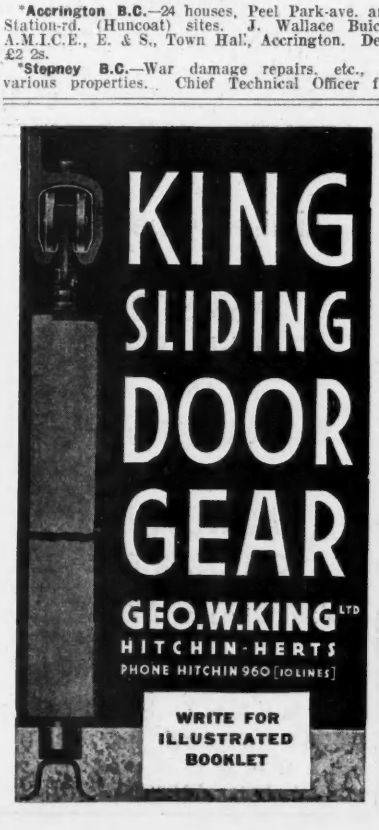
SEPTEMBER 30.

***Welwyn Garden City U.D.C.**—68 houses (scheme No. 14). B. H. Deamer, C., Council Offices. Dep. £2 2s.

NO DATE.

Aberdare U.D.C.—Construction of nine shops, six flats, six garages and a public convenience on a site at Penywaun Neighbourhood, Aberdare. E. & S., Vestry Hall, Aberdare. Dep. £2 2s.

***Haverfordwest R.D.C.**—134 houses at various parishes. C., 10, Picton-la. Dep. £2 2s.



PAINTING, ELECTRIC LIGHTING, MATERIALS, ETC.

SEPTEMBER 11.

***Southend-on-Sea C.B.**—External and internal painting of various schools. Architect to the E.C. Dep. £2.

ROADS, SEWERAGE AND WATER WORKS

SEPTEMBER 4.

Cardiff T.C.—Site preparation works, Llanrumney neighbourhood. City S., City Hall, Cardiff. Dep. £2 2s.

Irthlingborough U.D.C.—Road works at Addington-rd. housing site. Surveyor's Office, Station-rd., Irthlingborough. Dep. £2 2s.

SEPTEMBER 6.

Swansea C.B.—Sewerage works at Birchgrove and Heol Las. E. & S., Guildhall, Swansea. Dep. £5.

SEPTEMBER 9.

Petworth R.D.C.—Water supply scheme. N. Green, engineer, Newlands, Petworth. Dep. £2 2s.

SEPTEMBER 11.

Cardiff T.C.—Site preparation works, North Llanishen (contract No. 3). City S., City Hall, Cardiff. Dep. £2 2s.

Scunthorpe B.C.—Construction of roads, sewers and water mains on the New Brumby housing estate, site No. 2. B.E. & S., Comforts-ave., Scunthorpe. Dep. £2 2s.

SEPTEMBER 12.

***Malvern U.D.C.**—Site preparation work on Pickersleigh-ave. site. S. & W.E., Council House, Malvern. Dep. £2 2s.

SEPTEMBER 19.

Staffordshire Potteries Water Board.—Construction of r.c. reservoir of about 200,000 gals. capacity, in two units, at Madeley. Mr. C. V. Brown, M.Inst.C.E., M.I.Mech.E., engineer and manager, Albion-st., Hanley. Dep. £2.

Staffordshire Potteries Water Board.—Construction of r.c. reservoir of about 200,000 gals. capacity, in two units, at Stallington Heath, nr. Fulford. Mr. C. V. Brown, M.Inst.C.E., M.I.Mech.E., engineer and manager, Albion-st., Hanley. Dep. £2.

Staffordshire Potteries Water Board.—Construction of r.c. water tower of 50,000 gals. capacity at Weir Heath, nr. Longton, Stoke-on-Trent. Mr. C. V. Brown, M.Inst.C.E., M.I.Mech.E., engineer and manager, Albion-st., Hanley. Dep. £2.

SEPTEMBER 20.

New Sarum T.C.—Reconstruction of Blue Boar-row and part of Fisherton-st. City E., Council House, Bourne Hall, Salisbury. Dep. £2 2s.

Tendring R.D.C.—Little Clacton sewerage scheme (contract No. 1). W. S. Laing, A.M.I.Mun.E., E. & S., Council Offices, Weeley, near Clacton-on-Sea, Essex. Dep. £2 2s.

SEPTEMBER 21.

Anglesey C.C.—Bodfordd sewerage and sewage disposal scheme. Rofe and Raffety, engineers, 3, Victoria-st., Westminster, S.W.1. Dep. £2 2s.

GENERAL BUILDING WORK

(LONDON)

Caterham and Warlingham.—NURSERY SCHOOL.—B.C. have approved a plan submitted by W. F. Wright, L.R.I.B.A., "Tregeare," Upper Court-rd., Woldingham, Surrey, for the erection of a nursery school, "Strathmore," Whyteleafe-rd., Caterham.

Caterham and Warlingham.—HOUSES.—Mr. G. S. Lewis, F.R.I.B.A., 84, Norfolk-ave., Sanderstead, has been given approval to erect seven houses adjacent "Avondale," Croydon-rd., Caterham.

Enfield.—HOUSES AND FLATS.—B.C. have approved layout submitted by the borough engineer for the erection of 300 dwellings in five-storey and three-storey blocks of flats and individual houses on the site north of Hoe-la.

Hornchurch.—BUNGALOWS.—L. G. Holden, Ltd., builder, 2, Newbury-gdns., Upminster, has received T.P. approval to erect six bungalows in Doncaster-way, Hornchurch.

Hornchurch.—BUNGALOWS.—Bldg. and T.P. Comm. have given T.P. approval to A. J. Cooper, builder, 120, Cecil-ave., Hornchurch, to erect eight bungalows in Bettinge-rd., Harold Wood.

Hornchurch.—BUNGALOWS.—Messrs. H. Webb (Builders), Ltd., Bridge-yard, Southend Arterial-rd., Romford, have been given T.P. approval to erect six bungalows in Ascot-gdns., Hornchurch.

Walthamstow.—OFFICES, LABORATORY AND LAVATORY.—B.C. have approved plans submitted by Philip G. Lees, L.R.I.B.A., 3-5, Cherrydown-ave., Chingford, E.4, for the erection of offices, laboratory and lavatory at the factory of Advance Components, Ltd., Back-rd.

Wood Green.—CIVIC CENTRE.—Sir John Brown, A. E. Henson & Partners, FF. & AA.R.I.B.A., 117, Sloane-st., S.W.1, have prepared revised layout plans for a civic centre for the B.C. which are to be submitted to the M.O.H. for approval. Est. cost is £500,000.

(PROVINCIAL)

Accrington.—Plans submitted to T.C. for layout for 110 houses, Lower Brown-Birks, Huncoat, for T. Newhouse.—166 houses, Old Hall Farm, Huncoat, for T. Marshall.—44 houses, Burnley-rd. and Wood-side-rd., Huncoat, for B. Whittaker & Sons, Ltd.—Sec. mod. school adjoining Highergate, Huncoat, for Lancs E.C.—Hannibal Ramsbottom & Sons, Ltd., propose 8 houses, Lodge-st. and Water-st.

Altrincham and Bowden.—U.D.C.'s propose conversion of 80 huts, Dunham Park, into temporary houses at £200 each.

Birmingham.—T.C. propose maternity and child welfare centre at Ridgacre-rd., Quinton, at £13,075. H. J. Manzoni, City E.—New pavilion, King Edward's Grammar School, for E.C. Architects, Jackson & Edmonds, 61, New-st., Birmingham.

Blackburn.—T.C. propose new workshops on site at Mill Hill and Watson-st. W. Pickstone, Boro' E.

Blackpool.—E.C. approved estimate of £39,700 for Little Marton Infants' School. Plans by Boro' E., W. Pickstone. Plans approved for:—Extensions to works and offices, Victoria-st., for Blackpool Gazette and Herald, Ltd.—Extensions at Back Johnson-rd. for Marton Laundry, Ltd.—Motor coach house, Central-dr. and Queen Victoria-rd., for Standerwick Motor Co., Ltd.—Blackpool and Fylde Society for Deaf propose extensions to premises.—Zell-Em Products, Ltd., propose new premises adjoining Marton-rd. tram depot.

Bolton.—B.C. approved plans for:—Eight houses, St. Bees-rd., for Lancashire C.C.—120 houses, Padbury-way, for B.C.—Extensions, 19-21, Mort-st., for Halliwell Central Reform Club.—Reconstruction of Victoria Mill, Nelson-st., for Robert Farnworth, Ltd.—Extensions, Hereford-st., for Warburtons Bakery, Ltd.

Workshops, off Simpson-st., for Carty Cast Stone Co., Ltd.—New classrooms, off Stott-la. and Castleton-st., for E.C.—Extensions to mill, Edith-st., for Crosses & Winkworth, Ltd.—Extensions, Plodder-la., for Jacksons (Edgefold), Ltd.—Alterations, Davenport-st., for Metallic Card Clothing Co., Ltd.—B.C. seek M.O.H. approval for proposed crematorium.—To lease sites at Johnson Fold estate to R.C. authorities, and at Lever Edge-la. estate to C. of E. authorities, for new churches.

Border.—R.D.C. to build 10 houses, Wetheral. No contracts let.

Bournemouth.—Jackson and Greenen, F. & A.R.I.B.A., Hinton-bldgs., Hinton-rd., Bournemouth, are architects for proposed new departmental store for Beale's, Ltd.

Bredbury and Romiley.—U.D.C. seek loan of £47,000 for 28 houses at Woodlands estate and 8 at Cherry Tree estate.

Bromsgrove.—U.D.C. propose old people's assembly room, etc., at Crown-close, and dressing rooms, baths, etc., at Victoria Ground for Rovers F.C. Plans for both schemes by Surveyor, F. W. Goodman.—Worcs C.C. propose ambulance station.

Bulwell.—Notts E.C. propose infants' school, Cantrell-rd., at £57,869.

Chester.—T.C. to lease site at Sealand Trading estate to Chester Metal Works, Ltd., for new factory.

Church Stretton.—U.D.C. propose 36 houses, Prosser's-yard site.

Congleton.—T.C. propose day nursery, foot of Park-hill, at £12,000.

Cotebrook.—Council of St. John and the Holy Cross propose alterations to church. Architect, T. Shirley Worthington, Thos. Worthington & Sons, Oxford-rd., Manchester.

Coventry.—M.O.E. approved inclusion of following schools in 1951-52 programme:—Caluden Castle (£269,280); Willenhall Primary (Phase 1) (£40,000); and Tile Hill Broad-la. (Phase 1) (£50,000). Plans by City A., Donald E. E. Gibson.

Cumberland.—Tenders being obtained by C.C. for 12 houses at Wetheral. Plans by County A., Portland-sq., Carlisle.

Cumberland.—C.C. propose 27 nurses' homes on various sites at £54,000.—New clinic, Millom, at £12,000.—Health centres, Whitehaven and Workington, at £25,000 each. County A., J. H. Haughan.

Darlington.—R.D.C. Surveyor, 53, Coniscliffe-rd., Darlington, has prepared plans for public convenience at Heighington. No contracts let.

Dronfield.—Pioneer Health and Housing Society, Ltd., propose 14 houses (first stage of scheme for 2,000) and health and community centres, Green-la.

Droylsden.—U.D.C. to erect 52 flats off Moorside-rd.

Dudley.—T.C. to invite tenders for 164 houses, Sledmere estate.

Durham.—Miners' canteen to be built at Burnmoor. Plans by Miners' Welfare A., Saville-row, Newcastle.

Flintshire.—E.C. propose sec. mod. schools at Penley and Saltney in 1951-52 programme. County A., W. Griffiths.

Gateshead.—T.C. has received M.H. consent to use 120 acres in Felling area for housing. H. J. Cook, Municipal-bldgs., Gateshead, Chief A.

Guisborough.—Garbutt, Archibald and Archibald, 23, Albert-rd., Middlesbrough, have prepared plans for 100 houses (first of batch of 400) for U.D.C. Work is out to tender.

Hartlepool.—Scheme is being prepared by Boro' E. (R. H. Snowball) for 10 shops, West View. M.H. approval sought.

Macclesfield.—Trustees of Booth Green Methodist Church propose new church, Wood-la., Adlington.

Middlesex.—M.C.C. Fire Brigade Com. propose to erect 10 ambulance depots of special construction at est. cost of £158,000.

Morecambe.—T.C. propose new garages, stores and offices at cleansing depot, Moss-la., at £25,000.

Newcastle-on-Tyne.—Housing Com. to invite tenders shortly for 312 houses and bungalows on Montagu estate at £400,000. Plans by City A., G. Kenyon, 18, Cloth Market, Newcastle.

Newcastle-on-Tyne.—L. J. Couves & Partners, Carliol House, Newcastle, are architects for alterations in Grainger-st. for Isaac Walton & Co., Ltd.—S. J. Stephenson and Gillis, Saville-chbrs., North-st., Newcastle, have prepared plans for alterations in Clayton-st. for M. Jackson & Sons, clothiers.—Warehouse to be built at Stepney Bank for Shilling Brothers to plans by M. A. Mackenzie 1, Eldon-sq., Newcastle.—R. Robinson & Co., Ltd.,

"THE BUILDER" PRICES

LEAD

The Ministry of Supply announces that on August 22 the price of good soft pig lead was increased by £8 from £104 to £112 per ton delivered.

LEAD PRODUCTS

The Associated Lead Manufacturers, Ltd., have announced that following the increase to £112 per ton in the Government-controlled price of lead, as announced by the Ministry of Supply, the following basic prices of their lead products became effective on August 22.

	Basic Price per ton. £ s.
Genuine English dry white lead (1 x 8-cwt. cask)	138 10
Genuine ground English white lead (1 x 5-cwt. cask)	156 10
Genuine refined English red lead (1 x 5-cwt. cask)	130 0
Genuine English powdered litharge (1 x 5-cwt. cask)	130 0
Genuine refined English red lead ground in oil (1 x 5-cwt. cask)	151 10
English sheet lead (2-ton lots)	130 15
English lead pipe (2-ton lots)	132 0
English lead shot (1-ton lots)	140 5

COPPER

The Ministry of Supply announces that on August 22 the price of electrolytic copper was increased from £186 to £202 per ton, delivered consumers' works.

The Ministry's buying price for rough copper in slabs of from two to three cwt. was also raised on the same date from £144 to £156 per ton. Discounts, premiums and charges for forward delivery remain unchanged.

The prices have been increased to safeguard the Ministry's position in view of the increase made by United States producers in the price of copper, and pending discussions with the Northern Rhodesian producers on the basis of the agreement reached with them in July last, that they would not wish to take advantage in their pricing arrangements with the Ministry of Supply of any increase in the American prices due to the imposition of the United States import duty.

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stationers, etc., Clavering-pl., Newcastle, to build warehouse in Queen-la., Newcastle, and have prepared own plans.

C. Solomon, St. Mary's-pl., Newcastle, has prepared plans for extending store in Skinnerburn-rd. for Tyneside Foundry Co., Ltd.—Plans have been prepared by A. A. Glynn, 41, Derby-st., Newcastle, 4, for R.C. church at Whickham View.

New Mills.—Derby Diocesan Council for Education propose new church day school at £48,000 .

Northants.—E.C. propose following schools for 1951-52 programme:—Sec. mod. at Moulton (£110,000); science block, Kettering Grammar (£35,000); sec. mod. at Towcester (£90,000). County A., J. Perkins.

Oswestry.—Self-contained block at extension to out-patients' dept. proposed at Robert Jones and Agnes Hunt Orthopædic Hospital at £46,000.

Rowley Regis.—T.C. propose conveniences, Blackheath Market Place at £7,000.

Runcorn.—U.D.C. to invite tenders for 45 houses, Town Hall estate. Plans by E., A. B. Cunningham.

Rushton.—M.O.W. propose restoration of Rushton Lodge.

Salford.—T.C. approved plans for:—Extensions to works, Cow-la. and Hope-st., Salford, for Eclipse Candy Co., Ltd.—Rebuilding "Albert Inn," Regent-rd. and Comus-st., for Hardy's Crown Brewery Co., Ltd.—New bank, Broad-st. and Hankinson-st., for Manchester and Salford Trustee Savings Bank. —Rebuilding of offices, Chapel-st., for Manchester Bonding Warehouse.—T.C. to prepare plans for police headquarters at £160,000.

Scarborough.—T.C. to offer six sites for police houses on Eastfield estate, Seamer, to North Riding C.C.

South Shields.—Building licences for nine houses at Kingsway have been granted to R. Brown & Son, Lord-st., South Shields, and for four in West-ave. and King George-ave. to J. W. Ridley, St. Mary's-ave., South Shields.

Staffs.—C.C. propose additional nursery at Kidsgrove and new nursery at Leek at £10,000 each.

Stockport.—T.C. propose sports pavilion, Woodbank Park, at £10,000.

Tyne. — Improvement Commission approved scheme to extend Sutherland Quay, Tyne Dock. Scheme to be carried out in conjunction with Consett Iron Co., Ltd., Durham.

Tynemouth.—E.C. earmarked site on Chirton Grange estate for infants' and jun. school.

Urmston.—Lancs E.C. propose commencement of sec. school, Irlam-rd., in September. G. Noel Hill, County A.

Washington (Co. Durham).—U.D.C. Surveyor prepared plans for further 80 houses, Blue House-la.—U.D.C. to consider erection of houses on an extension of Washington Stn. estate.

Westhoughton.—U.D.C. approved plans for:—Dairy, Marshes Farm, Hart Common, for Bridgewater Estates, Ltd.—Potato crisp works, James-st., for G. Holbrook.—U.D.C. to invite tenders for 50 houses, Hindley estate.

West Riding.—C.C. propose jun. and infants' school, Sowerby Bridge (1950 programme).

Wigan.—T.C. approved plans for:—Alterations and rebuilding of repair garage and smithy at Gas Works for N.W. Gas Board.—Extensions to garage and workshop, Brook-la., for J. W. Liptrot, Ltd.—4-bay extension to works, Darlington-st., for Peppermill Brass Foundry, Ltd.—Extension and loading bay, Trencherfield Mill, Pottery-rd., for Lancashire Cotton Corporation.

Wigton.—R.D.C. to build 24 houses, Waverton.

TENDERS

* Denotes *accepted*.
† Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modification*.
¶ Denotes *accepted by H. M. Government Departments*.

Accrington.—24 houses at Pell Park-av. and Station-rd., Huncoat, for T.C.: *A. Spencer, Accrington.

Bebington.—Reconstruction work at New Ferry Baths, for T.C.: *Boultons (Bebington), Ltd., Village-rd., Higher Bebington, £8,935.

Blackpool.—Erection of Toronto-av. prim sch., for E.C.: *Bristol Aeroplane Co. (Housing), Ltd., £102,079.

Bolton.—Extensions at Moor-la. 'bus depot, for B.C. Building work: *Hutchinson & Senior, Ltd., Farnworth; aluminium roof decking: *Wm. Briggs & Son, Ltd., Liverpool; steelwork: *John Booth & Co., Ltd., Bolton; glazing: *W. H. Heywood & Co., Ltd., Manchester.

Bridewell-place., E.C.4.—Office building for Messrs. Trollope & Colls. Trehearne & Norman, Preston & Partners, architects, 83, Kingsway, W.C.2: *Trollope & Colls, 41, Great Queen-st., W.C.2.

Bridgnorth.—36 houses at Sydney Cottage estate, for U.D.C.: *W. Basterfield & Co., Ltd., Store-la., Kinver, £48,120.

Bridlington.—63 houses at West Hill estate, for T.C. Culpin & Son, 3, Southampton-pl., W.C.1. Quantities by Dearle & Henderson, London: *A. Schofield & Son (Builders), Ltd., Hornsea, £75,643 (subject to M.H. approval).

Carlisle.—New school at Belah, for E.C.: *John Laing & Son, Ltd., Carlisle.

Coventry.—Erection of first stage of Howes-la. prim. sch., for E.C.: *W. H. Jones & Son, Longhurst-la., Coventry, £57,304.

Crook and Willington.—50 houses at Crook, for U.D.C.: *R. G. Finlay, Ltd., 28, West Sunniside, Sunderland. The council has instructed the architects, T. A. Page, Son & Hill, 75, King-st., South Shields, to prepare plans for business premises on the same site.

Cumberland.—Conversion of "Greenhill," Wigton, into a children's home, for C.C. Plans by County A., Portland-sq., Carlisle: *E. C. Coleman, Carlisle, £9,828.

Cumberland.—Adaptation of Grange Bank, Wigton, as hostel for aged, for C.C.: *J. Simpson, 42a, Collingwood-st., Carlisle.

Ellesmere Port.—226 non-traditional houses, for U.D.C.: *Holland & Hannen and Cubitts, Ltd., Liverpool.

Ennerdale.—Extensions and improvements to Market Hall, Egremont, for R.D.C.: *Border Engineering Contractors, Ltd., 134, Queen-st., Whitehaven, £7,165.

Glasgow.—Additions to the public sch., Dunard-st. Mr. John Easton, architects, 256, West George-st., Blythswood-sq., Glasgow, W.C.2. Excavation, brick and building works: *Wilson Brothers (Builders), Ltd., Glasgow; plumber and sanitary engineering work: *John Paterson & Co., Ltd., Glasgow.

Glasgow.—Extensions to the Holm Foundry, Inverlair-rd.: *G. & J. Weir, Ltd., Engineers, Cathcart Engineering Works, Glasgow.

Hereford.—68 flats and two shops at Holme Lacy-rd. for T.C.: *Sellick Nicholls & Co., Ltd., St. Austell, £69,125.

Herefordshire.—Erection of fire station at St. Owen-st., Hereford, for C.C.: *W. C. Bolt & Sons, West-st., Hereford, £36,372.

Hornchurch.—52 dwellings on the Dovers' Farm site. *Douglas Grant & Partners, 60, Finsbury-pavement, E.C.2, £60,787. 30 dwellings on the Dovers' Farm site. *A. C. Salinger & Co., Ltd., 15, Park-dr., Upminster, £34,810.

Lanarkshire.—52 houses at Chapelhall. Mr. Samuel MacColl, architect, County Offices, Beckford-st., Hamilton: *Stewart & Sons (Housing), Ltd., Glasgow.

Lancaster.—72 houses at The Ridge estate, for T.C.: *District Master Builders' Association. £99,380 (extension to contract).

Leamington Spa.—42 houses at Tachbrook-rd., for B.C.: *Edgar Crowder, Ltd., Birmingham. £53,504.

Leeds.—Erection of Moortown county prim. sch., for E.C.: *W. J. Simms, Sons & Cooke, Ltd., Nottingham, £99,854.

Leek.—18 houses at Baddeley Green site, for R.D.C.: *H. N. Bourne, Roselea, Wylfield-la., Brown Edge, Stoke-on-Trent.

Lincoln.—11 flats and maisonettes at Boultham Moor North estate. P. F. Burridge, F.R.I.B.A., City A., Stamp End, Lincoln. Quantities by Messrs. A. E. Thornton-Firkin & Partners, 10, Mint-st., Lincoln. *M. J. Gleeson, Ltd., 816-822, Chesterfield-rd., Sheffield, 8, £13,488.

London.—47-51, Featherstone-st., E.C.1. Daydon Griffiths, F.R.I.B.A., 28, Gloucester-pl., Portman-sq., W.1:—

Dove Bros.	£6,289
Patman & Fotheringham, Ltd.	5,869
C. P. Roberts, Ltd.	4,252
*Walter Gladding & Co., Ltd.	4,248

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London.—4-31, Huntsworth-mews, N.W.1. Daydon Griffiths, F.R.I.B.A., 28, Gloucester-pl., Portman-sq., W.1:—

W. H. Lorden & Son, Ltd.	£1,327
Ricketts & Hubbard, Ltd.	1,324
Hammond & Miles, Ltd.	1,261
*George Shaw (Builders), Ltd.	1,082

¶London (Admiralty).—Particulars of contracts placed by Civil Engineer-in-Chief's Dept., Admiralty:—

Leydene: H.M.S. Mercury. Construction of sleeping quarters, John Hunt, Ltd., South Wharf, Cleveland-rd., Gosport, Hants.

¶London (Air Ministry).—List of new contracts to value of £500 or over for week ended August 12:—

Building work: James Blake, Ltd., Aberdeen; J. M. Jones & Sons (Builders), Ltd., Maidenhead. *Painting work*: C. J. Else & Co., Ltd., Lincoln; Chas. Scott & Son, Mansfield, Notts. *Reroofing and painting work*: Cambridge Erection Co., Cambridge. *Reroofing work*: D. T. Edwards & Co., Ltd., London, S.W.1. *Runway and drainage work*: Lavender McMillan, Ltd., Worcester Park, Surrey.

Maintenance work: F. Shepherd & Son, Ltd., York; The Building and Public Works Construction Co., Ltd., Swindon; Downing, Rudman & Bent, Ltd., Chippenham; Francis Newton, Hitchin; J. & C. Hull, York. *Agricultural maintenance*: J. W. Page, Ltd., Hampton Hill, Middlesex. *Hot-water installation*: Dean & Beale, Ltd., London, E.C.4.

¶London (M.O.W.).—Contracts placed by M.O.W. for two weeks ended August 12:—

London: Dover House, S.W.1, Internal and external war damage repairs, Walker Lilly & Co., Ltd., Orchard Works, St. Ann's-st., S.W.1. Hans Crescent Hotel, S.W.3, External painting and repairs, F. Troy & Co., Ltd., 131, Great Suffolk-st., S.E.1. Admiralty-bldgs., Whitehall, External painting, T. H. Kenyon & Sons, Ltd., Chancellors Works, Croxley-rd., W.9. British Museum, W.C.1, Internal and external painting, Ernie Bayliss, Ltd., 88, St. Stephen's House, S.W.1. Adelphi, Strand, W.C.2, War-damage repairs and decorations, Galbraith Bros., Ltd., 34, High Holborn, W.C.1. Palace of Westminster, Repairs to roof of Lords Chamber, John Mowlem & Co., Ltd., 91, Ebury Bridge-rd., S.W.1. Foreign Office, Whitehall, Internal painting, C. & T. Painters, Ltd., Mordaunt-rd., Harlesden, N.W.10. Reubens Ceiling, Banqueting House, Whitehall, Decorations, etc., Marshall Andrew & Co., Ltd., 31, Queen Anne's-gate, S.W.1. First-floor committee rooms, Houses of Parliament, Internal redecorations, John Mowlem & Co., Ltd., 91, Ebury Bridge-rd., S.W.1. Patent Office, 25, Southampton-bldgs., W.C.2, External painting, John Greenwood, Ltd., King William-st. House, Arthur-st., E.C.4. Royal Naval Division Memorial, Greenwich, Re-erection, Galbraith Bros., Ltd., 34-35, High Holborn, W.C.1 Whitehall-gdns., Foundations, Trollope & Colls, Ltd., 41-44, Great Queen-st., W.C.2.

Aberdeen: Peterhead, Erection of temporary office buildings, J. W. Stewart & Sons, 22, Queen-st., Coupar Angus. *Cardiganshire*: Aberystwyth Inland Revenue Office, 17, Eastgate, Adaptations, E. T. Davies & Son, Felindre Mills, Aberarth, Aberayron. *Denbighshire*: M.O.F. Slaughterhouse, Ruthin, Alterations and additions, John Hughes (Contractors), Ltd., 12a, Halt-st., Wrexham, Denbighshire; Sandiacre, Erection of telephone repeater station, H. Rouse & Sons, High-st., Mansfield Woodhouse, Notts. *Hampshire*: Ministry of Labour, Portsmouth-rd, Woolston, Southampton, Erection of employment exchange, R. H. & A. W. J. Hinton, 40, Deacon-cres., Bitterne, Southampton; Pyestock Old Site, Farnborough, construction of inter seometer and rest rig, Lavender McMillan, 54, Cheam Common-rd., Worcester Park. *Inverness-shire*: Barra, Castleboy, Inverness, Erection of new temporary telephone exchange, Jas. Laidlaw & Son, 12, Playfair-st., Glasgow. *Kent*: C. & E. Marine-parade, Folkestone, Erection of hutted accommodation, O. Marx & Son, Ltd., 153, Sandgate-rd., Folkestone; M/P, Gun-la., Strood, External and internal decorations, J. H. Durrant & Son, Ltd., 282, High-st., Rochester.

Lancashire: Ministry of Supply, Little London Hall, Risley, near Warrington, Conversion of dormitory blocks into flats, Walker Peak, 17, Church-st., Warrington. *Monmouthshire*: Inland Revenue Office, Municipal-chbrs., Corn-st., Newport, Alterations and adaptations, H. J. Herbert & Co., Ltd., Alexandria Joinery Works, Constable-la., Newport. *Morayshire*: Knockando J.S. school, Erection of temporary school buildings, The Scottish Tarmacadam & Asphalte Co., Ltd., 44-52, Bilbas-st., Glasgow, C.5. *Northamptonshire*: Fineshade, Top Lodge, Rockingham, Erection of forestry commission housing, Loakes & Pettitt, Ltd., Bridge-st., Thrapston. *Nottinghamshire*: Wedding Drive Lodge, Worksop, Erection of foresters' house, G. E. Middleton & Sons, Ltd., 32, Gatsfood-rd., Worksop. *Shropshire*: Apley Castle Industrial Hotel, Wellington, Alterations and adaptations, K. S. Rock & Co., Ltd., Little Pountney-st., Wolverhampton. *Sussex*: Crossbush, Arundel, F/C housing, F. W. Hill (Bognor Regis), Ltd., Spencer-st., Bognor Regis. *Wiltshire*: M/S Storage, Sevenhampton, General repairs, R. J. Leighfield & Sons, Ltd., 1, Whitney-st., Swindon. *Zetland*: Voe, Erection of temporary telephone exchange, T. L. Anous & Co., North Ness, Lerwick.

¶London (War Dept.).—Works contracts placed by War Dept. for week ended August 12:—

Surrey: Miscellaneous work, W. G. Sheppard (Builders), Ltd., Guildford. *Oxon*: Miscellaneous work, Bosworth & Wakeford, Ltd., Daventry. *Cumberland*: Miscellaneous work, Brown Fraser & Co., Ltd. (two contracts), North Berwick.

Yorkshire: Painting and decorating work, Allen McDermot, Bradford. *Northants*: Miscellaneous work, Clarke & Belton, Stamford. *Warwickshire*: Miscellaneous work, G. Linnecor & Son, Ltd., Birmingham. *Warwickshire*: Building work, Monsell (Contractors), Ltd., Coventry.

Margate.—Factory for the manufacture of silk stockings: *Rice & Sons, Ltd., £106,298.

Margate.—Factory to be built by corporation for Klinger Manufacturing Co., Ltd., at Westwood. Holland & Hannen and Cubitts, Ltd.

London, S.W.1	£126,654
Gilbert-Ash, Ltd., London, W.1	117,387
G. E. Wallis & Sons, Ltd., London, W.C.2	115,200
Richard Costain, Ltd., London, S.W.1 ...	115,175
Wates, Ltd., London, S.W.16	114,943
Charles R. Price, London, N.W.9	113,770
Francis Jackson (Contractors), Ltd., Ickenham, Middlesex	111,907
Cementation, Ltd., London, S.W.1	107,270
*Rice & Son, Ltd., Margate	106,298

Newburn-on-Tyne.—General adaptations at the Newburn-on-Tyne Employment Exchange: *J. H. Fisher & Co., Ltd., Kenton, Newcastle.

Newcastle-on-Tyne.—Six police houses in Heathdale-gdns., for T.C. G. Kenyon, City A., 18, Cloth-market, Newcastle; *R. Allan Brack, 149, Barras Bridge, Newcastle-on-Tyne.

Newcastle-on-Tyne.—Enamelling shop, Glasshouse-st., for Hugh Wood Components, Ltd.: *R. Bowey, Back Raby-st., Newcastle-on-Tyne.

Newcastle-on-Tyne.—Seven old people's houses on the Longbenton estate, for T.C. G. Kenyon, City A., 18, Cloth-market, Newcastle: *J. H. Greenwell & Co., Hillheads-rd., Whitley Bay.

Nidderdale.—12 houses at Upper Poppleton and eight at Nether Poppleton for R.D.C. *J. H. Reynard & Son, £15,445 and £10,506.

Northumberland.—36 houses for the Forestry Commissioners, at Stanhaugh Shields: *R. W. Bell & Co., Mistletoe-rd., Jesmond, Newcastle-on-Tyne.

Nottingham.—Erection of hostels at Colchester-rd. and Seagrave-rd. Strelley estate, for T.C.: *W. J. Simms, Sons & Cooke, Ltd., Nottingham, £26,919; *Comery & Bolton, Ltd., 3, Clarence-st., Nottingham, £25,055.

Otley.—12 south aspect houses and eight north aspect houses at May Lea estate, for T.C.: *Harrison Builders (Pudsey), Ltd., £15,956 and £10,223.

Peterlee Development Corp.—82 houses at Thorntree Gill site, Horden, Co. Durham: *G. M. Pearson & Son, Hetton-le-Hole, Co. Durham.

Ruthergien.—New houses on the Fenniesbank housing site: *Sir John Train & Co., Ltd., 36, George-sq., Glasgow, C.1.

Salford.—Additional classrooms at Tootal-drive prim. sch.: *Drye & Co., Salford.

South Shields.—Erection of 52 houses on section 1 (contract C), Simonside development area, for T.C. B.E., Town Hall, South Shields: *H. E. Pitt, Ltd., Sunderland, £60,136.

Stoke-on-Trent.—Extensions to home for the blind at Trentham, for T.C.: *G. A. Poole, Ltd., 37, Liverpool-rd., Newcastle-under-Lyme, £32,500.

West Bridgford.—44 flats and six houses at Valley-rd. estate, for U.D.C.: *Progressive Builders, Ltd., 107, Carlton-hill, Nottingham, £53,587.

Wincanton.—Six houses at Charlton Horethorne with external services, for R.D.C. R. Earnshaw, council's architect, Council Offices, Wincanton. *W. Paul, Wincanton, £10,904.

Wrexham.—70 houses at Trevor, for T.C.: *Holland & Hannen and Cubitts, Ltd., Liverpool.

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